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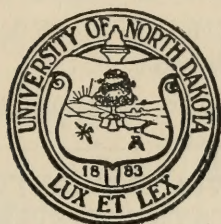
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# The Quarterly Journal

(of the)

## University of North Dakota



VOLUME ELEVEN  
1920-1921

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PUBLISHED BY THE UNIVERSITY

# The Quarterly Journal

OF

The University of North Dakota

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## Announcement

THE Quarterly Journal is a periodical maintained by the University of North Dakota. Its primary function is to represent the varied activities of the several colleges and departments of the University, tho contributions from other sources are welcomed when they are the outcome of scientific research, literary investigation, or other form of constructive thought.

Subscriptions are solicited. The price is nominal—one dollar a year, thirty cents a single number.

All communications should be address to

THE QUARTERLY JOURNAL,  
University, North Dakota

## Editor's Bulletin Board

THE Quarterly Journal regrets its inability to keep to the full its promises made on its last Bulletin Board. But unexpected difficulties arose in regard to two of the articles named for this number. They may, however, be lookt for in the January issue. Aside from these there may be expected four studies from as many of our old contributors whose writings have always been highly appreciated: Dr. O. G. Libby offers an article on "Our New Northwest", Dr. George M. Janes, on "The Shingle Weavers", Dr. Karl R. Stolz, on "The Story of the Garden of Eden" and Dr. Vernon P. Squires on "The Appreciation of Bible Literature." These studies will be found to mesure up well with the writers' former contributions.

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A. J. LADD,  
EDITOR

NORMANDEN PUBLISHING CO.





# The Quarterly Journal

VOLUME 11

OCTOBER, 1920

NUMBER 1

## The University and Latin-American Development

(A STUDY IN CO-OPERATION)

H. R. BRUSH,

*Professor of the Romance Languages and Literatures,  
University of North Dakota*

In the year 1915 there was a marked increase of interest in the study of Spanish among the students of the University of North Dakota. Inasmuch as this was similar to what had been occurring previously in other institutions in the country, the circumstance was in itself not remarkable; yet, it was suggestive of a change in viewpoint, a change that found its impulse outside of the University. This impulse was a larger public appreciation of the importance of Latin-America to the United States. It is not the purpose of this discussion to deal extensively with the cause for this appreciation nor adduce much proof. One may risk saying somewhat dogmatically that the collisions, which we in neutral America had suffered as the result of the European War, had jarred us partially out of our isolation and made us realize that the old aloofness would be no longer possible. Furthermore, Latin-America, which had dealt largely with Europe, trading raw materials for finished products, was now cut off from previous sources of supply and was compelled to appeal to the United States for the goods it sought,—appeal in a manner which could not be ignored. Likewise, the larger business enterprises of this country were beginning to find more and more the necessity, or advisability, of developing external trade. Banks, mining enterprises, tropical fruit and rubber plantations, and cattle breeding were drawing large amounts of capital from the United States and thus adding to the points of contact. Such were some of the more tangible things that were affecting public sentiment.

But there was also another, and more subtle, cause. During the past fifteen years Latin-America has received a large amount of at-

tention as a continent essentially unknown. It is the greatest untouched field of natural resources—the continent of the twentieth century. Such men as Clemenceau, James Bryce, and Roosevelt had travelled in it and written about it. The United States had been thrown into somewhat violent collision with it at Panama and in Mexico and was beginning to foresee difficulties arising from the trade expansion and commercial rivalries. We claimed to protect it under the Monroe Doctrine. President Butler of Columbia has remarked that “the greatest need of Americans in the twentieth century is to learn to think internationally.” The beginning of such thought has come in connection with Latin-America. Certain of our educational institutions, such as Yale, introduced departments devoted to Latin-American relations and affairs. In the face of the consumption of our ready resources, of increasing need for markets, and of a demand for certain raw materials, a territory of vast natural wealth, some eight million square miles in area and with an average population density of only nine to the square mile, could not but prove attractive. All these things, roughly listed, afforded a sufficient cause for the change in public sentiment.

This change was not unmarked by hostility,—a hostility that has not yet completely vanished. Our instinctive provincialism found exponents who rebelled at a problem of expansion which involved the investment of men and money in Latin-America. In 1915 and 1916 the American Association for International Conciliation sought to remove causes of strife by acting on the principle that if we know our neighbor we cannot hate him. The Association therefore helped to support, in the Summer Session of the University of North Dakota, as well as in many other institutions, courses in Spanish and Latin-American affairs. These courses were popular, but the announcement of them was the occasion for a blast of indignation on the part of the immigration agent of one of the great railways traversing the state. He is quoted as saying that, “the state university has no business to give courses directing the attention of young men outside of the state; North Dakota desires immigration, not emigration”!

Also, at a winter institute, the writer of this article, was called upon to talk about Latin-America and its significance to us. Despite the fact that the talk was purely informational and absolutely devoid of propaganda,—in fact, enlarging upon the essential difficulties for



success in Latin-America—one of the influential citizens of the state proceeded to lambast the speaker in a letter addrest to the President of the University, which letter was later published in a pamphlet. To be sure, one may ignore expressions of the kind because they do not now represent the general trend of American opinion, and yet they serve as evidence of the difficulty which many really honest Americans find in appreciating relations with foreign countries at their true value.

So far as students are concerned, this growing interest in Latin-America was evidenced by the trend toward Spanish, a language felt to be a necessity for the situation. It also brought to the writer's attention, both within and without the classroom, specific questions as to the avenues by which a young man might start a career in Latin-America. Inquiries were few regarding diplomatic, religious, or social work; business or professional aspirants formed the group of those interested. Applications to the Pan-American Union resulted in bits of interesting information but little practical help; the intimation was that Latin-America offered a great career,—for those who could get into it.

It was very evident that no sane young man should contemplate going to Latin-America relying upon himself alone on the general basis that "the Yankee will land on his feet somehow." The proper course seemed to be for the aspirant to go out as a member of a large business organization, possibly forming his own concern later at such time as his experience and record should provide the training and attract the capital essential to success. The problem was thus reduced to finding the concerns which were seeking young men for service and the elaboration of a system by which the University might co-operate with business in fitting the man for the part destined. The preliminary survey made it sufficiently plain that the opportunities of Latin-America are largely commercial (banking, sales, exploitation, engineering, transportation) with very little professional work outside of engineering and agriculture.

With the object of establishing a direct contact, the writer addrest a circular letter under date of March 25, 1915, to sixty-eight of the larger American concerns, choosing different lines of enterprise.<sup>1</sup> There were replies from about two-thirds of the con-

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<sup>1</sup> This letter is given in part. After a summary of the situation and remarks on student interests, together with the writer's concep-

cerns address. This is a surprisingly large number, considering the common fate of circular letters. Twenty-nine replies out of the sixty-eight were of considerable length, the remainder being simply information that the concern was "not interested."<sup>2</sup> In nearly all cases the replies were dictated by a high official of the company,—president, general manager, vice-president in charge of export trade, etc. It was also noted that every one of the export trade associations replied to the inquiries and that all offered co-operation in some form.

The replies can possibly be best analyzed with reference to the specific questions. There was very little difference of opinion regarding the first question (*cf. note 1.*) The acquisition of the principal commercial languages,—Spanish, French, and German—<sup>3</sup> business practise, commercial geography, salesmanship, the rudiments of law, history, economics, and literature are mentioned as essentials in the university course. One important concern adds,<sup>4</sup> "the politeness of manner which all Latin-Americans observe and require to be observed." The president of one of the oldest export associations says,<sup>5</sup> "A regular university course, either classical or English will be of inestimable value to the young man who expects to trade in Latin-America." The secretary of the National Railways of Mexico bears testimony that a good reading and writing knowledge of Spanish enables the candidate to acquire fluency of speech in a short time. Engineering concerns natural-

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tion of the problem, certain practical points were taken up in the following eight questions,—

I. What elements of preparation can well be given in an American University?

II. Granted this preparation, and some knowledge of a particular business, is actual travel and residence in Latin-America in absolute requisite?

III. What do you find to be the chief defects of young men who go out?

IV. Would it be possible to outline a plan by which a student can get his technical training in part simultaneously with his scholastic work in the university? How would you suggest that this be done?

V. Is it practicable to arrange for a scheme of cooperation between the university and manufacturing concerns engaged in the particular field, part of which would be a definite apprenticeship in the business after finishing the university and prior to leaving this country?

VI. Would it be possible for your concern to enter into any such scheme to any extent? If so, how?

VII. What particular lines of activity hold out the greatest opportunities for advancement to a capable man?

VIII. What specific points would you emphasize in the preparation?

<sup>2</sup> It is suggestive that a later series of letters reveals the growth of an interest.

<sup>3</sup> Some add Portuguese where Brazil is sought as a field.

<sup>4</sup> The Bethlehem Steel Company.

<sup>5</sup> Wm. E. Peck of William E. Peck & Company, New York; the Comas Cigarette Machine Company also stresses the need of a broad general culture.



ly insist upon a full engineering course for those who seek employment in that kind of development.

Few concerns express the opinion that prior residence or travel in Latin-America is an absolute pre-requisite to starting in altho very many urge it as a very great advantage. However, the Bethlehem Steel Company calls it "indispensable" and another concern says,<sup>6</sup> "upon entering employment travel and the forming of business acquaintances is absolutely essential."

Question three in regard to the defects of young men develop some interesting and suggestive replies. One captain of industry says,<sup>7</sup> "the chief obstacle to such a career is the unwillingness to sacrifice immediate pleasure and profit by going abroad to incur the comparative discomforts thereof and the desire to get rich quick." A great mail order house<sup>8</sup> curtly puts the chief difficulty as, "Big head and disinclination to work." Another commonly mentioned difficulty is the inability to allow for differences between Latin-American ways and our own. One South American legation<sup>9</sup> remarks with Yankee brevity, "Tenderfeet, as a rule, do not succeed in those countries." One great concern refers to the temptations afforded by the universality of alcohol in Latin-America. "Lack of initiative" is strest by the Dupont Powder Company. One great exporter<sup>10</sup> says the chief defect is "lack of thoroness." A machine company says, "In many cases they represent the raw, intrusive, self-advertising class that must be very obnoxious to the cultured gentlemen they are apt to meet in their commercial relations. We think Germany has been much more fortunate in the selection of well-qualified traveling men." The Cuba Railroad Company is individual in its complaint that our young men look at the work as temporary and not as a career.

The majority of concerns speak hopefully of co-operation between the university and business concerns in the matter of preparation. However, President Johnson<sup>11</sup> does not approve because he feels that the business requires the entire time and that the setting aside of a specific class in this way is subversive of discipline. He quotes the head of the Borsig Locomotive Works (Berlin) as ex-

<sup>6</sup> United Shoe Machinery Company; also W. E. Peck; Allis-Chalmers says travel makes for greatest success; Cuba R. R. Co. says, "of utmost benefit."

<sup>7</sup> President Alba B. Johnson of Baldwin Locomotive Works.

<sup>8</sup> Montgomery Ward & Company.

<sup>9</sup> Colombia.

<sup>10</sup> W. E. Peck; similarly the American Trading Company; "personal defects" would cover the charge made by the majority of replies.

<sup>11</sup> Baldwin Locomotive Works.

pressing a similar opinion founded upon experience. Some of the trading concerns suggest spending the vacation in the offices; manufacturing concerns offer a similar suggestion as to practical work. Several call attention to the plan now in practise at the University of Cincinnati. A considerable number feel that instruction in language and general cultural subjects given to men actually at work, this instruction being provided for men in evening classes, is about as far as the university can go. Some are unable to make any suggestions.

As for query five, the replies are generally in the affirmative, as might be expected. Some concerns state that this is their regular practise; others are unwilling to commit themselves but feel that it must be a question for specific settlement in each case. Some of the engineering corporations<sup>12</sup> actually have such an apprentice course in operation,—probably all of them, in some form or other. One great engineer<sup>13</sup> believes co-operation possible if worked out by conference between the university and a specific concern.

The sixth question received answers of all types from a curt "No; we require all of a man's time and effort," to "We use many college men and are always in a receptive mood for applications from college men." The engineering concerns are generally favorable to taking on men who have received some of the instruction discussed in query one. Some are so closely wedded to the idea that chances for promotion into the export business must be allotted to men within the organization, regardless of the special nature of the foreign business, that they see no chance for co-operation; the cogs of the machine must not be disturbed. The export associations seem rather cordial to the idea of co-operation to the extent of summer employment. Several houses decline to consider the matter because they have, they feel, found a short cut. They bring young Latin-Americans to this country, train them for from three to five years and then send them back to represent the house.<sup>14</sup> A few manufacturers were willing to be convinced; they felt that a division of interest was impossible. On the whole, one might say that in 1915 the business world was more or less skeptical as to co-operation with the university but was open-minded, ready to be convinced. In fully three-fourths of the

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<sup>12</sup> Allis-Chalmers Manufacturing Company.

<sup>13</sup> Charles H. Moore of New York.

<sup>14</sup> E. G. Brunswick-Balke-Collender Company. This is a good illustration of American opportunism: it is a handy method but it never puts the foreign business in American hands.



cases, however, the business concern declined to make any blanket arrangement but preferred to deal with individual cases as they should arise, the disposition being cordial.<sup>15</sup>

All bear testimony to the wealth of opportunity, provided the man can measure up to it. Engineering, commerce, banking, exploitation, and public works are the phases generally mentioned. One authority goes so far as to compare the present development of Latin-America with that of the United States seventy-five years ago. The head of the South American business of the United Shoe Machinery Company holds out the opportunities of agriculture.<sup>16</sup>

There is also a substantial agreement about the last of the points to be emphasized so far as scholastic work is concerned. A large portion of those replying stop with that but a number of others view the question more intimately and reply accordingly. One letter reads in part,—<sup>17</sup>

"(A man should) make up his mind he is prepared and constituted to enter into a life in a foreign country with the idea of making it his permanent home, at least for a number of years. This carries with it not only a determination to look upon his entering into Latin-American fields not in the light of a pleasure jaunt, but a business occupation, but also a desire to make a careful study of the people of these countries in an earnest endeavor to deal with them in their business life according to their own customs and characteristics. They have their own peculiarities, just as we have, and success with them is dependent upon a man's ability to adjust himself to their business customs and methods."

The conclusion drawn from this correspondence is that this country in 1915 was really just beginning to envisage the possibilities of foreign commerce, particularly in Latin-America. American expediency and temporizing were in evidence; the universities were not wholly trusted but, on the whole, a spirit of co-operation was plainly to be seen.

Much has happened since 1915 to strengthen American student interest in Latin-America. The business interests in our financial metropolis came to a full appreciation that any sensible extension

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<sup>15</sup> President Johnson: "Manufacturers are always eager to obtain the services of educated young men willing to enter an apprenticeship of business after leaving the university."

<sup>16</sup> "The great agricultural future of Latin-America offers great inducement for young men who have received scientific training."

<sup>17</sup> From Secretary J. C. Wickliffe of C. C. Mengel & Bro. of Louisville, Ky., makers of mahogany veneers; similarly the Bethlehem Steel Co.

of our foreign trade must be preceded and accompanied by such extension of our banking facilities in the southern continent as would give our merchants the same advantages as those hitherto possessed by the commercial nations of Europe. The National City Bank of New York founded branch after branch in the southern mercantile centers and inaugurated the broad-minded policy of offering to students of American universities a system of business fellowships.<sup>18</sup>

By this system students of sophomore grade, or above, are given during vacation and after graduation a year of training, comprising rotation thru the various departments of the Bank, practical study of language, and Latin-American affairs. They bind themselves to a term of service with the Bank in the foreign field if such service be required. The International Banking Corporation offered similar opportunities and various large concerns established South American branches affording positions for qualified men. The continued demands made upon the United States by Latin-America on account of the inability to supply the needs emphasized the importance of this part of our foreign market and persuaded our manufacturers of its desirability.

The war temporarily directed the attention of our university students elsewhere and plans for co-operation were for the time being abandoned. It is unquestioned that the university men who were taken from the home environment and sent overseas lost much of their provincialism, and many were given the notion of the possibilities of a career in foreign business such as the young university man in England has long had. Our large concerns are already inaugurating a campaign for business, not only in Latin-America, but in Europe itself.<sup>19</sup> But of all the fields none has seemed more attractive than the one to the south of us. It is not surprising, therefore, that when the University of North Dakota opened in September, 1919, more students chose Spanish than ever before, and a course in Latin-American History became popular. It is possible to go only a short distance in advance of public opinion and public opinion had now come to the point of accepting a closer touch with our southern neighbors.

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<sup>18</sup> Six of these fellowships have been awarded to students of the University of North Dakota since 1915. These awards have greatly stimulated interest in the students as well as the study of Spanish and South American history and affairs.

<sup>19</sup> e. g. concerns like the International Harvester Company and the Quaker Oats Company.



It was realized that the great changes that have taken place since 1915 may well have altered the views of business interests upon the nature and extent of university co-operation. To determine these changed viewpoints in order to be able to meet them better another circular of inquiry was sent out to the same firms as the previous letter. It renewed the inquiries but was somewhat more specific as to opportunities for employment. The replies are interesting particularly because of their greater positiveness. Nearly all of the concerns address answered the inquiry, which fact is in itself a testimony to the growth of the commercial relations. Practically all express themselves as willing and anxious to give a trial to any young man with a university training who was desirous of entering the concern with a view to eventual transfer to Latin-America. Most of them hold to the reasonable restriction of judging each individual case on its merits.<sup>20</sup> The characteristics of the needed preparation are best expressed by the following extract:

"The instruction needed for the more extended commercial opportunities opening to us south of the Rio Grande, is, first of all, general culture; then, specifically the history and customs of the Latin-American republics and last of all, a fair speaking and writing knowledge of the Spanish language."

The special interest in this quotation lies in the emphasis on general culture, an emphasis evidently based upon experience. It shows a growing appreciation of the qualities of the Latin-American temperament which speaks much for our more intelligent relations in the future. The cordial desire for a practical program on the part of the universities is frequently worded. One concern writes, "Your effort to bridge the gap between academic instruction and the practical needs of the commercial and industrial life of today is altogether commendable." The letters also show the activity of the concerns themselves in securing an adaptation of instruction. The Commonwealth Shoe & Leather Company of Boston calls attention to the conference of business men and educators held for this purpose in March, 1920, at the Drexel Institute in Philadelphia.<sup>21</sup> One

<sup>20</sup> E. C. Packard Motor Car Company.—"It would not be possible to state in advance how many men we could accept. We would necessarily have to pass on each individual case as the application presented itself."

<sup>21</sup> The Government has issued a booklet on the matter: **Training for Foreign Trade**, Misc. Series No. 97 of the Department of Commerce. The conference mentioned consisted of representatives of the colleges and universities of the United States and of business concerns having a combined capitalization of more than \$26,000,000,000. The

great concern<sup>22</sup> would have us "broaden the courses as much as possible without unduly robbing the technical branches \* \* \* the present four-year collegiate course is insufficient and all students, whether academic or technical, should take first a broad general course and then specialize in the chosen branch. This would necessarily increase the time required for undergraduate work but would, I believe, result in the development of stronger men. It is quite noticeable at this time that the average graduate is weak in his grasp of economics, business and what might be termed the general humanitarian subjects as contrasted with the purely technical ones."

This is an admirable expression of opinion for it shows the distance our best business men have come in outlining the fundamentals for real business diplomacy such as our English competitors have long exemplified. It is also a decided answer to the opportunists who would seek to shorten the courses and narrow training to the purely practical. One important concern advocates in a public expression of opinion the desirability of reorganizing our foreign service so as to add a distinct department of trained foreign business representation.<sup>23</sup> It also stresses the need of cultivating public opinion further as to the advisability of developing foreign trade.

The sincere desire of the companies to obtain men is almost universal, sometimes to the extent of almost a blanket promise to give a trial. Vice-president Crawford H. Ellis of the United Fruit Company states,—

"If you will have your graduates write to us when they have completed their courses, stating in what particular they wish to specialize, I have no doubt that we can use a number of men from your institution."

It is also noticeable that the plan of bringing Latin-Americans to this country for training is not so much in vogue as five years ago. The feeling is growing that such business is best directed in the long run by our own people if a satisfactory and permanent business is to be established. A few concerns still hold to promotion from within

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conference lasted for three days and created the Industrial Council which is to study the situation and make the results known to business and educational institutions. Each business concern subscribed \$25.00 toward the cost of such a survey. A copy of the report may be secured from Dr. Hollis Godfrey, Drexel Institute, Philadelphia.

<sup>22</sup> The Du Pont Powder Company.

<sup>23</sup> cf. Address by W. W. Nichols of the Allis-Chalmers Manufacturing Company at the 7th National Foreign Trade Convention at San Francisco, May 13, 1920.

exclusively but hold out the opportunity to university men who are willing to begin at the bottom like the rest.

One cannot read these letters, coming from all parts of the country, the expression of opinion from some of the most famous and most firmly established of our business enterprises, and not be convinced of the desire for a real co-operation with the higher institutions of learning; also, that this desire springs both from the need for men and from a vaguely defined confidence that the universities can provide certain necessary phases of the training if they will so elect. But, there are also some rather general criticisms which deserve attention.

The first is the shortcomings of the university students. The charge is made that the university man fails to accept the sound principle that he cannot at once capitalize the fund of general information which he has gained in school and does not like to admit that the fundamentals of a business must be learned from the same sort of training that ordinary men acquire them from.<sup>24</sup>

The university student is also charged with lack of thoroughness, a defect which is apparently ascribed to the habits of work acquired in school.<sup>25</sup> These are severe criticisms and may well be considered by our university students.

Even more severe are the criticisms of the universities themselves. The replies of 1915 gave no hint of such complaints but they are much in evidence in those of 1920. The Ford Motor Company writes,—

"More effective cooperation between universities and business firms could be established by universities keeping more in touch with the rapidly improving methods and advancing requirements of the industries as they apply to office and technical matters."

and,—*"The weakness of college courses that are intended to fit*

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<sup>24</sup> "For the most part we find that the university student cannot capitalize his education until he has been for some time with our company . . . The college man cannot, as a rule, start any further along than the man who had no training. We start them both at the same starting point. After that, the race is up to the best man."—S. S. Marquis, Department of Education, Ford Motor Company.

<sup>25</sup> "There is, unfortunately, today a feeling that the old experience and the old knowledge are no longer essential and that almost anyone can run a business or conduct a department. This comes from the spirit of unrest. What the spirit of unrest is, no one seems to take the trouble to ascertain. Largely, however, it is the result of wrong philosophy and the lack of proper national and social aims."

Joseph E. Bray, Vice-president, A. C. McClurg & Company.  
<sup>25</sup> "The chief defect in the young men who have entered our office has been lack of thoroughness."—William E. Peck.

"Lack of definite purpose and poor personalities,"

Goodyear Rubber Company.  
"Lack of moral stamina"—Brunswick-Balke-Collender Company.



students for work in connection with industrial life is that there is a lack of laboratory experience."

The B. F. Goodrich Company remarks,—

"Unless our university methods of instruction are shaped to meet existing needs, it seems apparent that considerable lost motion will enter into the work."

The National Cash Register Company distinctly approves of more co-operation,—

"This is one of the big things which must be accomplished within the next few years if the university is to maintain its standing, as industry is gradually reaching out and doing more of the training which the university has hitherto been unable to accomplish and anything that we can do along the lines of cooperation we shall certainly be pleased to do."

The Goodyear Tire & Rubber Company is possibly the most severe and specific in its criticisms and its reply deserves to be quoted in entirety,—

"We were very much interested in your letter of June 9th, but, because of the slowness of Colleges and Universities thruout the country in coming to see this as you are, The Goodyear Tire & Rubber Company has established Goodyear Industrial University at a cost of three million dollars, and has a budget of one million dollars a year for operation.

"We have a staff of ninety-six Professors and Instructors on full-time duty, with an enrollment of 6,100. At the present time we are training the personnel for our South American plant. This plant will be in operation in February, 1921. We have had to train these men because we could find them trained nowhere else."

These criticisms are certainly stringent and deserve thought on the part of university authorities and students alike. Are they fair? Probably not in their entirety. It is natural for the business man to view the university rather narrowly from the standpoint of his particular activity. Aside from the distinctly professional schools, the office of the university is primarily to carry on the work of the secondary schools and provide a sound and sane leadership in the broad world of society.<sup>26</sup> It is *not* intended to provide a complete preparation for a specific business. It *cannot* do this for the very reasons that are assigned by some of the above replies them-

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<sup>26</sup> cf. F. A. Vanderlip in *Sch. & Soc.* for May 6, 1920.

selves. But the academic world has certainly been too academic in that it has not kept enough in touch with practical life. There has not been enough insistence upon thoroughness. Business men stress the thought that the man entering business must devote his entire time and effort to that business. Have we in the university insisted upon a similar grade of devotion to the prime business of the university, namely, study or have we allowed the various university "side shows" to beguile the student too much with the notion that thus he might find "real life?" Have we condoned, under the vague supposition that "youth must have its fling," such a degree of inefficient work, poor discipline, and irregular habits as would result in a speedy dismissal from any business concern of standing? Ought we not to adopt more rigid standards of fitness such as business concerns maintain, thereby removing the charge of lack of thoroughness? Individual instructors may well take heed to a system of more efficient grading and estimation, such as business houses provide for the removal of the unfit. It would be healthy for all institutions if more of the slackers were shown the door for the same reason that they would be discharged from a business house,—because they don't do their work. It is fair also to assume that, since we have admitted such large bodies of students to our walls, we ought to inform ourselves more thoroughly as to the probable futures of these students. A committee on vocational guidance has a genuine job before it! A university which seeks to guide men into the avenues of foreign trade should make its investigations of the needs at first hand.<sup>27</sup> It must also take heed to the importance of certain branches of study such as language, economics, history, sociology, and psychology which the business concerns are emphasizing so strongly.<sup>28</sup> Dislike it though we may, there is enough of truth in these specific criticisms to make it imperative that our faculties lay aside academic dignity long enough to find whether their work may not be just as well done and yet be done with more reference to active life. The student may also take

<sup>27</sup> Some concerns (e. g.—The United Shoe Machinery Company) advise that the university send a man to Latin-America to find out conditions and make recommendations.

<sup>28</sup> cf. Miss Ruth Phelps of the University of Minnesota in Sch. & Soc. for April 15, 1920. The British committee of business men, government officials and school men which met for the revision of curricula in the light of the lessons of the war has added largely to the amount of language studied. Note also the following,—

"Of course, there are certain conditions common to all industry at the present time. As you undoubtedly know, the problem of human relations is one of prime importance, and no course of instruction which is intended to fit men for industry can be said to have fully accomplished its purpose unless it includes a thorough study of this factor."

D. G. Stanbrough, General Superintendent, Packard Motor Car Co.

fair notice that the picking of "snap" courses, dishonesty in examinations, and riotous insubordination in the university world is a poor preparation for successful promotion in business.

We did not at first contemplate in this article anything more than the discussion of the topic in its narrowest sense, but the letters upon the subject have forced the matters just mentioned. There has been no attempt to discuss them thoroly, consequently no apologies are offered for the lack of full discussion: the criticisms are mentioned merely as food for reflection on the part of those concerned. But one cannot help feeling optimistic at the growth of breadth of view on the part of great business concerns. The narrow and the provincial is being cast aside and there is developing the same largeness of vision that has made Great Britain the factor that she is in the commercial world. The antipathy to the university, such as was once exprest by the late Richard T. Crane, is being replaced by the persuasion that the university, culturally and practically, has it in its power to train the men who are to make America commercially in the days to come. Witness the co-operation which has brought into being the recent developments at Harvard and the prolonged experiment at Cincinnati. But the universities must on their part be open-minded; otherwise, the significant enterprise of the Goodyear Industrial University stands as a suggestion of what business is prepared to do.



# Robert Owen—Social Dreamer

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The truth of the fact that the real is ever the child of the ideal is well shown in the life and influence of Robert Owen, the social dreamer and prophet of a better day for workmen and common people. Prior to 1886 four biographies of him had been published—all in English—the most of which are now out of print. Since the beginning of the present century, three new ones have appeared, one in French by Edouard Dolleaus, another in German by Helene Simon, and lastly a finely illustrated and large two-volume work in English by Frank Podmore. To this list of three biographies should be added an admirable account by George B. Lockwood of the experiment at New Harmony. <sup>1</sup>

Owen died in 1858 and, altho sixty years have gone by, an interest in his career and personality still persists. An unusually successful captain of industry; a most strikingly original and unique personality; an instigator of practical reforms for the benefit of workmen; a pioneer along educational lines; an idealistic dreamer interested in the creation of Utopias; an incurable optimist; and a naive believer in the truth of his own ideas are some of the terms which may be used by way of characterization. M. Dolleaus well says that "he was not merely a closet philosopher but a man who did not hesitate to risk his fortune to put his ideas into practice." Much of English socialism, especially on its earlier and Utopian side, and the ideas leading to the establishment of cooperative stores or retail societies are the outcome of the life and ideals of this man who was both a successful business man and a social dreamer.

When Owen was born, in 1771, in a saddler's home in a small village of North Wales, the Industrial Revolution was just beginning in England, and Owen came in contact with it when at nineteen he went to Manchester and became the owner of a small cotton factory after having served several years as a draper's apprentice in London. The steam engine, the spinning jenny, the power loom, the cotton gin, and other mechanical inventions led to the change from

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<sup>1</sup> Edouard Dolleaus, **Robert Owen**. Societe Nouvelle, Paris.  
Helene Simon, **Robert Owen; sein Leben und seine Bedeutung für die Gegenwart**. Jena.  
Frank Podmore, **Robert Owen: A Biography**. Appleton & Co. New York.  
F. B. Lockwood, **The New Harmony Communities**. Marion, Indiana.

the domestic or household system of industry to the factory system. Cotton mills were hastily and poorly constructed, the work-rooms were overcrowded, sanitary requirements were neglected, the hours of labor were long, and many children, especially parish apprentices, were employed. Says a contemporary writer; "The greater number of children a widow has, she lives so much the more comfortably; and upon such account alone she is often a tempting object to a second husband. Indeed at cotton mills it often happens that young children support their aged parents by their industry." The early cotton lords in their race for wealth had little idea of their social obligations. Legislation and better social ideals were clearly needed.

New Lanark on the banks of the Clyde where Owen entered upon his kingdom in 1800 was the place where he worked out some of his ideals. Buying with others the cotton mills of his father-in-law, David Dale, he found some two thousand persons employed in them, of whom about five hundred were children from the parish workhouses who had been apprenticed to the mills for a term of years. "The population," says Owen, "was a collection of the most ignorant and destitute from all parts of Scotland, possessing the usual characteristics of poverty and ignorance. They were generally ignorant and much addicted to theft, drunkenness, and falsehood, with all their concomitant evils, and strongly experiencing the misery which these ever produce." But in 1812 he was able to write that these same persons "had now become conspicuously honest, industrious, sober, and orderly, and that an idle individual, one in liquor, or a thief, is scarcely to be seen from the beginning to the end of the year." The change came about thru the justice and moderation of Owen; checks, regulations, and direction of industry into legal and useful ways made for honesty and cleanliness in mill and village; a store selling goods at reduced prices was established; the hours of labor were shortened; and a sense of mutual interest established. Good conditions and business worked profitably together, but objections being made to his schemes, Owen bought out his partners getting part of his capital for so doing from Jeremy Bentham thru the good offices of James Mill and Francis Place.

The most remarkable experiment at New Lanark, however, was the educational one. Robert Owen was a founder of schools for young children, a pioneer of the kindergarten movement, and so the cause of rational education owes much to his influence. Owen believed that education is the primary source of all the good and

evil, misery and happiness, which exist in the world, in so far as it depends upon our operations. To him differences between man and man are due to environment, and conditions of environment are directly under human control. Owen seems to be in the same company as Adam Smith who says: "The difference between a philosopher and a common street porter seems to arise, not so much from nature as from habit, custom, and education." The formation of character was to Owen the true aim of education. In the schools which he established, objects more than books were used in teaching. Globes, maps, paintings, natural history specimens together with singing and dancing were the chief means used. An American visitor speaks of one invention thus: "It consists in personifying the parts of speech, and in assigning to each its relative importance according to the military system. General Noun figures in his cocked hat, sword, and double epaulettes. By his side stands Colonel Verb, and so on down to Corporal Adverb." The industrial reforms and the educational experiments brought many visitors to New Lanark, and the name of Owen became well-known.

The cotton manufacture with its vast profits was not, to the mind of Owen, of unmixed benefit to the nation. Long hours and excessive toil had become systematised and entrenched. The rights of childhood had been lost sight of. Owen believed that money was not every thing and exclaimed: "Perish the cotton trade, perish even the political superiority of our country (if it depends on the cotton trade), rather than they shall be upheld by the sacrifice of everything valuable in life by those who are the means of supporting them." Owen, himself, had instituted industrial experiments which served as a model for the factory legislation of the next fifty years. He had carried out at New Lanark the following program:

1. He had instituted model workshops and model dwellings for his workmen.
2. He reduced the hours of labor from seventeen to ten per day.
3. All fines—then a common feature of all workshops—were abolished.
4. No children under ten years of age were employed, but free education was supplied in schools built for the purpose.

Such a program was regarded as almost revolutionary by his fellow employers who valued an efficient factory and good working machinery but failed to see the need of giving care and consideration in order to keep the workers in an efficient working condition. Self-



interest alone should have prompted better conditions. Then—as now—the short-sighted point of view of immediate profits had to be corrected by legislation. But the proposal of factory regulation by legislation met with a great deal of opposition from both mill owners and economic thinkers. The principle of state interference was established, however, in the first Factory Act passed in 1819 and altho not all it should have been it was the first step in the long struggle that has followed down to our own day. “It should not be forgotten,” says Podmore, “that the first victory in the long campaign was due to Owen, so far at least as any achievement of the kind can be credited to the efforts and example of any single man.”

The end of the long Napoleonic wars in 1815 returned some two hundred thousand men into the domestic industries of Great Britain; the foreign trade was diminished; the wages fell rapidly both in agriculture and in manufacturing. Great distress ensued and various remedies were proposed. Said Owen: The ultimate cause of the distress is the displacement of human labor by machinery. Mechanism must be made subservient.” To this he added the idea of the formation of cooperative communities. A communistic settlement was to show the way out of the evils of individualism and competition. Theoretically there was to be absolute equality and community of property, all were to work as they were able and to receive a like share in the common product. Agriculture and manufacturing were to be combined. Inventions had enabled the workman to turn out a larger output in manufacturing and so also in agriculture a larger product could be obtained in time by improved methods and machinery. Owen did not recognize the law of diminishing returns as applied to land, which is that an increase of labor and capital may give larger and larger returns as the labor and capital are increased, but that there is a point which will eventually be reached where the product will no longer increase as fast as these factors are increased. Tho larger applications of labor and capital may continue to produce larger crops, the crops will not be so large in proportion to the labor and capital. At the present state of the arts extreme and intensive cultivation of land means dear land and cheap men. Various meetings were held and prominent people subscribed funds to start one of these cooperative villages but nothing was done. Owen busied himself with disseminating his ideas, and here we see the beginnings of socialism in England.

The opportunity Owen was looking for came to him in 1824 when the religious community of pious Germans under George Rapp

at Harmony, Indiana, determined to move their home and offered to sell the same to Owen. Coming to America, Owen found his fame had preceded him. He spoke several times in the Hall of Representatives at Washington and then went on to New Harmony on the banks of the Wabash and purchased it from the Rappites. The word had gone out that a community of equality was to be established and many full of sympathy flocked thither. They are described as a "heterogeneous collection of radicals, enthusiastic devotees to principle, honest latitudinarians, and lazy theorists, with a sprinkling of unprincipled sharpers thrown in." The medley brought discord and not harmony and, although animated by high ideals, the experiment came to an end in 1828 after a personal cost to Owen of \$200,000. His four sons remained, however, and became American citizens and left their influence on the schools, laws, and society of the Middle West. The failure of New Harmony and kindred communities seems but to prove the statement that it is only when communities of this character are established on a religious basis that they have much chance of living.

Undismayed by the failure of New Harmony, Owen went to Mexico seeking a place for a new community, and not finding it returned to England and started one which likewise failed. The enthusiast never admits failure, and Owen believed to the last that his cooperative communities would solve the social problem. He did not take any great part in what he regarded as palliative measures and insisted upon universal cooperation or nothing. The measure of his influence on the masses in England was, however, very great. Owenism was the leaven in the social lump and its influence can be seen in the cooperative movement, trade unionism, and socialism in England.

The word socialism was first used in English in 1853 in an article in *The Poor Man's Guardian*, signed "A Socialist." It had appeared the previous year in France, being used by Pierre Leroux, a French socialist. The publication of Owen's *What is Socialism?* in 1841, however, is the earliest instance of the term being employed as the title of a book. Socialism and Owenism meant the same thing until the development of Marxism or so-called "scientific" socialism. Today Owenism is generally regarded as an exposition of Utopian socialism. The scheme is not revolutionary and Owen could not bring himself to support the Chartist movement, which seems harmless enough now. Voluntary communities and the creation of new capital and not violence of expropriation were

to bring in the millennium. "It is just here," says Professor Gide, "that the cooperative program differs from the collectivist even to this day. But for all practical purposes Owen was a socialist, even a communist." <sup>2</sup>

Karl Marx, the high priest of present day socialism, in his earlier writings acknowledges his indebtedness to Owenism altho later he regarded it rather scornfully. Such ideas as the right of the laborer to the whole produce of labor, the right of the laborer to subsistence, and the surplus value theory were all developed by such followers of Owen as Thompson, Hodgskin, and Bray in their rebound from extreme Ricardian economics. "Owen brought Socialism," says Professor Foxwell, "down from the sky of speculation into the street, altho scientifically the Owenites were more important than Owen." <sup>3</sup>

Trade unionism was another result of the Owenite leaven and needs only to be mentioned. The cooperative movement is another. The founding of the Society of Equitable Pioneers by the weavers of Rochdale in 1884 and the opening of their little store in Toad Lane were the beginnings of cooperation on the distributive side which is such a marked feature of business in England today. All members receive a share of the profits in proportion to the amount they spend. The Rochdale store began in a small way, but "the time came when substantial profits were made—actually paid over the counter, tangible in the pocket." The Toad Lane store has expanded into nineteen branches and the parent store is housed today in a pile of buildings which it takes an hour to walk thru. The middleman's profits are cut out and every purchaser has thus a share in the business. There is also a wholesale cooperative society to supply the various retail societies with goods and it does an immense business even extended to transportation by ownership of ships, and to the cultivation of farms and plantations. Says Holyoake: "Owen's idea was to organize the world—Cooperation attempts the more modest task of organizing the provision store and the workshop." The idea of distribution is that of earnings and not needs. The ideal is self-help. <sup>4</sup>

Owen's peculiar doctrine should now be examined and need not detain us long, for along with some wheat there is a good deal of chaff. Owen in a strictly scientific sense was neither a philoso-

<sup>2</sup> Gide and Rist, *History of Economic Doctrines*, p. 235.

<sup>3</sup> See introduction by Professor H. S. Foxwell to Menger's *Right to the Whole Produce of Labor*. London.

<sup>4</sup> G. J. Holyoake, *History of Co-operation*, Two Volumes, E. P. Dutton & Co.



pher nor an economist, and what philosophy he had was decidedly upsystematic and unhistorical in spirit. Altho a popular lecturer and a voluminous writer for the press thru a long life, most of his ideas may be found in "New View of Society," publisht in 1816, and in "The New Moral Order," issued as a weekly paper from 1834 to 1844. Owen believed that human nature is perfect and that society corrupts it. His kinship to Rousseau may be seen here. Man is made what he is by his environment. Owen laid little stress on natural or physical environment and laid his whole emphasis on social surroundings. His fundamental doctrine and to him the most important of all truth is that the character of man is former for and not by him. Holding this idea tenaciously, Owen taught that character may be changed by education and training. But if man is entirely the product of his environment, how can he change himself? Can he lift himself by his own boot straps? According to this deterministic idea, man is not responsible or to blame for what he is. Says Owen: "The idea of responsibility is one of the absurdest, and has done a great deal of harm." Along with this went the idea that the "invention of religion, private property, and marriage was in opposition to nature's laws. Such ideas aroused opposition to his scheme of reform altho he himself was a mild deist and more Christian in practise than some of his critics. The point, however, is that Owen, like some radicals of today, was as ignorant as any new born babe of the laws of historical development. Institutions are usually the result of a long process of development; they are not invented, they grow, and throwing them over in a wholesale way leads to anarchy. In economic theory, Owen believed in a labor theory of value, that the value of an article should be estimated by the number of hours of labor involved in making it. An article, for instance, requiring ten hours of labor to make it would, in comparison with one requiring five hours, exchange at a ratio of one to two. Owen did not recognize the necessity of either interest or profits, and as profits are paid in money he would abolish the use of gold and silver and use labor exchange notes instead. Owen considered this discovery "more valuable than all the mines of Mexico and Peru." As Professor Gide shrewdly observes: "It has truly been a wonderful mine, and has been freely exploited by almost every socialist." An institution for the exchange of goods on the basis of labor exchange notes was establisht, but being based on an economic fallacy lasted only a short time. Then again if in a socialist community the community and not the parents were responsible for the rearing of the

children, what checks would there be on the increase of population? Owen denied vehemently the truth of the Malthusian contention. But it is very certain that under this scheme with its large increase of population, men might find that at "Nature's mighty feast" no cover has been set for them. But why continue the argument when most of the premises are in reality economic fallacies?

The consensus of opinion of both friends and critics seems to indicate that Robert Owen was a man of great purity of character. Simplicity and goodwill seem to have been the chief marks of the man and the chief source of his influence. But he had the defects of his virtues and, like all prophets, believed that his ideas embraced all truth. Miss Martineau in an interesting sketch observes that his candor and cheerfulness, his benevolence and charming manners would have made him the most popular man in England if he had been able to distinguish between assertion and argument and abstain from wearying his friends with his monotonous doctrines. The refutation of his extreme doctrine that only surroundings make the man is found in his own career; room must be made for the subtle something which is termed personality. The inspiration of his life and ideals has made the world better for his having lived. "He was," says Podmore, "the arch-heretic—Athanasius almost against the world—to the economic orthodoxy of his day, the gospel according to Ricardo and the men of Manchester. He found his contemporaries obsessed by a nightmare; and if he sought to replace it by a dream, the dream was at least generous and human." He had shown that shorter hours and better conditions for workmen did not lessen profits; he had helped in the passage of the first Factory Act in 1819; his influence has lived in trade unionism and the co-operative movement. Thus it may fairly be said that Owen more by his ideals than by his doctrines is still a force in the upbuilding of the new social order which is being slowly worked out not so much by revolution as by evolution. The law of social progress may be likened to that of the spiral which goes forward and backward, forward and backward, traces and retraces, but, nevertheless slowly but surely advances.

# The Emancipation of Labor

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Labor has been in a constant state of evolution. It is still evolving. What its ultimate condition may be perhaps no one can prophesy with any assurance, but it is possible to forecast with some degree of accuracy what are liable to be some of its conditions in the immediate future.

The first condition of labor was slavery. In this first condition the capitalist owned the laborer. Today of course there is no man of respect who would advocate a return to slavery, yet we must remember with shame that it was only fifty-six years ago that our own advanst, progressive, and so-called Christian country was able to abolish this most heinous and unrighteous institution. This might seem to indicate that reforms come somewhat hard in this country.

The second condition of labor was feudalism. The laborer here had taken the first step out of bondage. His condition in feudalism was better than in slavery, because he was more than a mere chattel to be bought and sold. Yet his condition even here was bad enough. In feudalism the capitalist owned the land, and the laborer was attacht to the land and owed the capitalist service for protection. The moral sense of the world finally owerthrew feudalism as it had slavery. The United States escaped this stage in the evolution of labor, perhaps because the rest of the world had advanst beyond it at the beginning of our history, perhaps because of the long survival of slavery in this country.

The third condition of labor was the wage system under which the relations of labor to capital were fixt by private contract. Under the wage system the capitalist was the tool owner and the laborer the tool user. The tool owner paid the tool user wages for his work. What should be paid for the work and how long the agreement should last depended upon the agreement of the parties. Here, as in slavery and feudalism, society was still organized into two classes. Yet so great was the change from feudalism that at first society thought that the laborer had at last completely achieved his emancipation. At first when capitalist and laborer dealt with each other as individuals the private contract seemed a sufficient protec-



tion to all parties and a social solution. But it was not long before society realized that the wage system was but another stage in the evolution of labor.

Had society remained as at first, composed of individuals, the wage system might have been nearer the ultimate goal; but unfortunately society changed, and with the change in society the condition of labor had to change. The success of the wage system depended upon the equality of the parties to the contract, so far as concerned the determination of the terms of the contract. As the wage system has actually worked in practice capital has had a great advantage over labor, so that the victory which at first seemed to have been won by labor turned out to be more or less of an empty victory.

Capital, in bargaining, possesses an inherent advantage over labor. Capital could wait. Labor could not wait. The danger of starvation made waiting impossible for labor.

In addition capital very soon began to see the advantage of organization and combination and began to use various devices to realize this advantage. The corporate form of organization lent itself especially to the purposes and plans of capital. By this means enormous aggregations of capital—the wealth of thousands of individual capitalists, was concentrated in one organization. This organization when completely effected, was often the only employer of a particular kind of labor left in the field. What could an individual laborer do against such an organization, when it came to a struggle to fix the terms of a private contract?

Under the wage system capital was, therefore, always able to drive a better bargain than labor. Capital looked upon labor as a commodity, and sought it as it would any other commodity. It paid as low wages as it could and still get the work done. It did this because it thought only of its own interests. It selfishly thought only of profits, and perhaps wrongly thought this the surest and best way to obtain them. In some fields, under our competitive system, before the idea of trusts and combinations was fully developed, capitalists were also goaded to this position by the fact that they were doing business in a world full of competitors. When the capitalists in the United States could not get cheap enough labor at home, they took on the Irish; when the Irish would no longer accept their terms, they turned to the Italians, Poles, Lithuanians, Slavs, and any other races whom they could induce to accept employment. Often this was done after they had secured a protective tariff for

the express purpose of enabling them to pay their employees higher wages.

The result was that the laborer's condition was not satisfactory. Feudalism was a great improvement over slavery, the wage system and private contract, a great improvement over feudalism, but the laborer still felt that, because of the unequal power of capital and labor, he was still in something of a condition of servitude. He again appealed to the conscience of the world and again the world said that labor was right and that the wage system so far as it rested on private contract must go the way of feudalism and slavery.

Great Britain and other continental countries have long since taken this position, but the progressive United States is, as usual, lagging somewhat behind. However, it is impossible to classify labor in the United States today. In the United States labor finds itself partly in the stage of development which we have just been considering, and partly in the next stage, and partly out of even this stage.

The fourth condition of labor is that of collective bargaining. Under this system labor is permitted to combine in trade unions and other labor organizations, just as capital has combined in corporations and trusts, and to deal with aggregations of capital thru the instrumentality of aggregations of labor. Labor insists that if capital is to be permitted to combine and organize, it also should be permitted to combine and organize. It claims that in no other way can it deal on equal terms with capital. The condition of labor has reached this stage in England and other countries and it is in process of reaching it in this country. Organized labor has gone on record for it. The Y. M. C. A., the Y. W. C. A., many churches, and innumerable other organizations representing the public have pronounced in favor of it. Many capitalists also have recognized this as a right of labor. Hence one would suppose that collective bargaining would be a right of labor generally admitted, and given the same standing as the corporate organization.

Yet some capitalists in the United States—of whom the United States Steel Trust is a notable example—are still fighting the principle. Capitalists have organized and propose to do business collectively, but the moment laborers begin to organize and propose to deal collectively, some capitalists refuse to recognize their correlative organizations, refuse to deal with them collectively, bitterly attack them for not contracting with them as individuals and accuse them of being led by agitators. They refuse to allow their laborers to

have a spokesman not of their own number, yet they insist upon their own right to employ as spokesmen attorneys not of their own number. Is not this a cowardly position? I do not believe in the class struggle between capital and labor, but if we are going to have such struggle, I believe in fair play and I believe that fair play means that labor should be allowed to use all the weapons that capital is allowed to employ. I believe it is only a small minority who would not agree with me and they are those who do not play the game of life fairly.

But if labor everywhere really wants collective bargaining, it will get it. A stream can be dammed, but the water of the stream cannot be kept permanently from going over the dam or thru it. The condition of labor is not what it should be. There is a dispute as to how it should be improved, but none that should be improved, and it will be improved. Let us hope that few capitalists will assume toward the wage system and collective bargaining the same attitude that slave owners assumed toward slavery.

Will labor have achieved its complete emancipation and the labor problem have found its final solution with the universal recognition of the right of collective bargaining? I, for one, cannot lend my assent to such a proposition. In fact I see indications that labor is already passing on beyond this condition and that society will soon relegate collective bargaining to the limbo with private contract, feudalism, and slavery.

The trouble with collective bargaining is that, tho it puts labor on more of a footing of equality with capital, it, nevertheless, takes no cognizance of a suffering third party, which is called the public. It still leaves society divided into two hostile camps. If this were only a private struggle between capital and labor, each might be permitted to combine and organize until the parties were on a footing of equality and then fight it out. But this problem is a social problem and it must be lookt at from the standpoint of humanity.

Up to this time capital, because of its advantage, has had the better of the struggle. The social consequences of this success are not altogether fortunate. For one thing the conquests of capital have resulted in a most unfortunate distribution of wealth. Our country is called a very rich country, and rightly so. There is wealth enough already in this country to justify such a statement, and there are greater possibilities than ever of increasing this wealth by properly encouraging production and using the instrumentalities of production which are available. During the last year of the war the total income of the people of the United States was enough to give



every family in the United States on an average a salary of nearly \$4,000.00, and before the war the total income was enough to give every family on an average nearly \$2,000. Yet one-fourth of the families in the United States, at the last census, had incomes of less than \$1500.00, and two-thirds of the families had incomes of less than \$1,000.00. At the same time one family in the United States had an income as large as the combined incomes of one million other families. Comparatively speaking the poor are getting poorer and the rich richer. This is not right. No wonder there is social unrest! There will be no social rest until this situation is corrected. If it is not corrected the dangers incident to the situation are appalling. We must abolish the dividing line between those who own a living and those who earn a living; we must get the conception that wealth is not something produced *by* man but *for* man; if we do not, I fear for the consequences.

For another thing the conquests of capital have resulted in profiteering, especially in the recent war period and post-war period. Capitalists have learned the secret of co-operation and they have applied it in favor of themselves but against both labor and the public. Of course the consuming public is made up of capitalists and laborers as well as of those who belong to neither class, but numerically the capitalists form such a small portion of the consuming public that they always profit at the expense of the rest of society by every increase in prices.

Competition is no longer the order in the commercial world. Price fixing and united action against a buying public characterize the merchant world. Competition was the life of trade until trade became the death of competition. All of this action is taken for the sake of profits. Merchants, manufacturers, and dealers want profits. The way to get profits is to boost the price of commodities and keep the wages of labor down, so that they instead of labor will get the profits. The war, with its removal of foreign competition gave them an unusual opportunity and they took advantage of it. As a result the consuming public needs emancipation as much as labor does. Reckless individualism has grown into industrial cannibalism. The first thing in the way of a solution, therefore, is to "scrap" the outworn theories of competition, individualism, and *laissez faire* and to begin our industrial life on a new basis.

The people who are guilty of profiteering and of accumulating the largest fortunes (and thus indirectly responsible for most of our economic problems) are those who under our system not only govern

themselves so far as their economic affairs are concerned, but also govern others as to their economic affairs, except as restrained by such laws as that of supply and demand. The farmer cannot determine the price for which he will sell his commodities, or buy his products. They are determined by others. The wage earner and the salary man have both their incomes and the price of every thing they buy fixed by others. Other classes are in the same situation. Even bankers, railways, and public service companies, public utilities and professional men are controlled in this respect. But there is one group composed of manufacturers, mill men, wholesalers, retailers, packers, etc., which is free from control by others as to the prices which they may charge for their products, and sometimes as to the prices which they must pay for materials which they buy. These are the people who are guilty of profiteering, and who have furnished our richest men.

They are glad to have other peoples' business conduct regulated; they even regulate most of the business of others; but they resent any interference with their own business. Economically a few are governing the many and without the consent of the many. In their enhancement of prices they are really levying taxes of a magnitude which no government would dare levy. This raises the question of whether we are not in danger of an economic tyranny. If, so, was political tyranny any more intolerable than would be such economic tyranny? The question is, shall the few continue to exercise their power, to govern the economic world, without being chosen by anyone but themselves to govern it, or shall they be forced to be governed as all other classes are governed? When the people come to see that it is a choice as to whether the price of steel, or the price of meat, or the price of sugar, or the price of gasoline shall be set by a trust or by the government, by a few men or by all the people, I wonder what the people will decide to do about it?

Yet if the tables were reversed, and labor instead of capital were victorious would the situation be improved? The laborer's situation would be improved, but would the situation of society be improved? Would the evils of wealth and poverty be abolished? Would profiteering cease? Is it not probable that labor would simply be substituted for capital and that labor would scheme for the exploitation of the public and of capital?

If it were a question between capital and labor alone, I should be satisfied to have labor triumph over capital, for I believe with Abraham Lincoln that "Labor is prior to, and independent of,

capital. Capital is only the fruit of labor, and could never have existed if labor had not first existed. Labor is the superior of capital, and deserves much the higher consideration." But it is not a question merely between capital and labor. Therefore I believe that labor must pass out of its condition of collective bargaining, even as it passed out of slavery and feudalism and as it is passing out of the contract wage system. A long-suffering public is not going to suffer the present situation much longer.

What then is going to be the future condition of labor? How is the problem of labor to be solved so as also to solve the problem of the consuming public?

So far as I know six possible suggestions have been made? (1) Collective bargaining, or the right of freedom of contract between groups of laborers and groups of capitalists; (2) arbitration and conciliation and the retention of the wage system; (3) the single tax; (4) socialism; (5) price fixing and limitation of incomes by government; (6) industrial democracy.

The trouble with the first solution is that it leaves every dispute to be fought out by private tho group action. Class is still arrayed against class. It is a primitive way of settling things. Society no longer tolerates the settlement of the disputes of individuals this way. Why should it longer tolerate the settlement of the disputes of groups in this way? If anything it is less justifiable than the old self-help and vengeance. The public suffers more in cases of strikes than it did in the case of private individual redress.

The trouble with the second solution—which is the plan adopted by Kansas and also to some extent the plan adopted by the Industrial Conference appointed by President Wilson with its National Industrial Tribunal and its Regional Boards of Adjustment—is that it also leaves the parties divided into two class. It is true, it attempts to substitute a regular legal forum for the private tribunal and to that extent is a step in advance, but the objection to this procedure is that there is no industrial code according to which disputes should be settled. Nobody knows how disputes between labor and capital should be settled until he knows the law upon the subject. At present there is little law. Nobody knows what sort of law might be evolved if the matter should be left for future decisions of this sort by the varying legal tribunals of the different states and of the federal government, nor how long it would take to make it. If possible, it would be better also to prevent industrial disputes rather than to provide some means for settling them after they have



occurred. However, this plan stands a chance of being the next stage in the condition of labor. I think the next stage will be either this, or what is called industrial democracy.

The single tax and also socialism have able advocates. There are men who think that either one or the other of these plans offers the only ultimate solution, and who believe that one or the other will some day be adopted by mankind. This may be true, but I do not think that either is liable to be the next stage in the evolution of labor or stands any prospect of general consideration, and therefore I shall not discuss them.

Price fixing and limitation of incomes would not be a complete solution of the problem before us, and I think so far as it is adopted it can be made a part of either the plan of arbitration or of the plan of industrial democracy. Hence, so far as I treat of it I propose to do so in connection with industrial democracy.

### INDUSTRIAL DEMOCRACY

Industrial democracy can be defined to mean control of a business by all the people connected with that business. Every man in certain kinds of business, both capitalists and laborers (and the public to the extent of its interests) would have a voice in the conduct of that business. They would have the industrial franchise. They would have the same voice in industrial affairs that they now have in political affairs. As we have said that there shall be no taxation without representation, so we would say that there shall be no labor without representation. Men would choose those who should govern them industrially, just as they select those who govern them politically. Men would formulate the rules of industrial conduct as they formulate those of political conduct. Labor would participate in management. Capital and labor (and sometimes the public) would become partners in every sense. Instead of two classes (or three classes if the public is included) there would be but one class. Perhaps the distinctions between capitalist and laborer and public would remain, but there would no longer be a distinction between capitalists as a class and laborers as a class and consumers as a class. This would mean more than humanitarian benevolence, or joint control of industry as outlined by the British government commission, or even arbitration and conciliation: it would mean self-government in industry. It would mean the filling up of the chasm between capital and labor. It would mean the transference of our whole economic

life "from the basis of competition and profits to a basis of co-operation and service." It would mean for the most part the prevention of industrial disputes instead of the settling of them after they have arisen.

Those who champion industrial democracy argue something as follows: The cause of our present industrial unrest is not so much low wages and bad working and living conditions—tho these are bad enough—as it is the lack of social control. People are beginning to feel that they have a right to a voice in industrial affairs as much as in political affairs. They object to having two classes in industry, an employing and an employed class, as much as they object to two classes in politics, a ruling and a ruled class. The conditions of work are bad, but they might be largely corrected in other ways; but tho they were corrected the problem of capital and labor would not be solved. We must go farther. The spirit of democracy has been growing in the earth. The people have nearly obtained political democracy, not only in the United States but in all the rest of the world. With the adoption of woman suffrage and proportional representation it may be said that the last battle for political democracy has been won in the United States. The spirit of democracy has not only entered the political field; it has entered the commercial field as well. Up to date most of its triumphs have been in the political field, but with most of these victories won there are signs that all the Herculean forces of democracy are going to be thrown into the industrial field. Autocracy is making its last stand here. The political despots have been overthrown, but the commercial despots remain. Political equality has been established, but industrial inequality continues. The people have an equal voice in the management of their government; they often have no voice in the management of the business in which they work; they simply take orders. A "Lord" by one name seems to them just as bad as a "Lord" by any other. They want no more "Lords." They want a benevolent plutocracy no more than they want a benevolent monarchy. The only way to stop this social unrest and thus to prevent industrial disputes and the best way to determine conditions of work, is by giving the people the same kind of a voice in the affairs of business that they have been given in the affairs of government. Industry must be democratized. Until this is done no amount of social legislation will prevent industrial disputes. So long as society is divided into two classes industrially, a higher and a lower class, industrial disputes will continue. It is not a question of efficiency,

altho when democracy finally triumphs, if it chooses as its leaders experts instead of politicians and other men who choose themselves for leaders, it will be the most efficient form of government; it is a question of freedom. Industrial freedom is just as dear to the people as political freedom, and there will be no industrial peace or rest until they get it. If we are going to have industrial democracy let us have it pure and unadulterated.

What form of business organization is required to accomplish these results?

There are many occupations and businesses where no organization is required. There are those where capital, labor, and consumer each gets all to which he is entitled, either because they are all one, or because the businesses are so small that each can and does deal with the other on terms of equality. Among these may be named farming and many other individual enterprizes. In all such cases nothing further should be done.

Other occupations may be divided into public and private. Public enterprizes are further divided into educational and industrial. In the case of public employments there are only two classes involved, the public and the employee, since the public is both capitalist and consumer. In the case of private employments there are three classes of public, labor, and capital.

A plan for industrial democracy might contemplate representation of capital and labor in the management of the business—in which case the rights of the public when involved would have to be safe-guarded by separate legislation or by a separate board with certain veto powers—; or it might contemplate the representation of all three interests in the first place. Mr. Plumb has chosen the latter alternative and, as I have already indicated, I propose to do the same and thus combine price fixing and limitation of incomes with the plan for industrial democracy.

Adopting this alternative, we must have for public employments a board comprised of representatives of labor and representatives of the public. I cannot think of a situation where the public should not be given a large majority. This certainly should be the case on school boards. Mr. Plumb advocates the public ownership of our railroads and their management by a board made up of one-third of representatives of the public, one-third of employees and one-third of management. I see no reason for the representation of management. The experiments with the city manager and commission manager forms of city government seem to indicate that it would



be better not to have the managers represented. In the case of public employments there are not three classes but only two. As between these two it seems to me the control should be in the public, and under it I believe labor would secure all to which it is entitled.

In private employments we have those which, because virtual monopolies, have become public callings, so that the public has a special interest in them and has a right to regulate them to the extent of such interest, and those which are not public callings, where the public has no such interest. In the first case, if the Plumb alternative is chosen, the public should be represented on the governing boards (and perhaps here a representation of one-third to capital, one-third to labor, and one-third to the public would be fair), while in the second case it needs no such representation, but may depend upon economic laws for obtaining its rights. There is a constant tendency for businesses to become virtual monopolies. Hence, if we observe the above distinction and leave the public off from certain boards because not public callings, we may find after a time that we must reorganize and admit the public to representation, as they become public callings. With all interested parties represented, I believe the interests of all could and would be fairly cared for.

Bearing this distinction in mind, how can this representation in industry be brought about? The corporate organization affords a ready, adaptable, practicable, and perhaps the only dependable means for the accomplishment of this purpose. Because of the wide existence of corporations, because of the universal knowledge of the corporate idea, and because of the peculiar organization of corporations, one might almost be tempted to think that corporations had been brought into the world for such a time as this.

There are different ways by which representation in industry could be introduced into corporations. It might be introduced by giving every stockholder and every worker a vote, either equal or unequal, for the board of directors with a right in the public to choose certain additional members in the case of public callings. It might be introduced by making every worker a stockholder and giving all stockholders a right to vote for the board of directors, (giving the public also a right to representation in the case of public callings). It might be introduced by giving capital, labor, and the public (where involved) a right to share a certain number of representatives on the boards of directors. In any case a short period of employment, analogous to naturalization, should be required of workers before they are given a vote. In either event the boards of

directors would choose the officers. Both the directors and the officers should be elected or chosen for short terms, but should be eligible to re-election. There might be other ways of introducing representation into corporations, but enough has been said to show the feasibility of the scheme. The only thing that we need to insist upon is that some sort of representation be introduced. The laborers must be represented upon the boards of directors. They must have a voice in selecting their bosses (who should be of their number) and their other industrial rulers. Men need and desire bosses and rulers of their own choosing in both places.

To bring industrial democracy to pass almost no changes would have to be made in the present methods of corporate management and organization. The number of people given the right to choose the directors would simply have to be enlarged to correspond with all the people in the industry, and some of the directors allowed to be other than stockholders. In most of the states this could be accomplished without the amendment of corporate laws. All the other incidents connected with corporate management and organization would remain unchanged. Where corporations do not employ any others than stockholders and are not public callings they already have this form of organization, provided all stockholders have the right to vote. If the workers were not made stockholders of course they would not share in the dividends. This would not be a vital matter, however, as the entire matter of wages, salaries, dividends, as well as who should be officers, and hours and conditions of work, would be partly determined by their representatives sitting on the board of directors. The present method of giving only shares a vote, or only shares of a certain kind of stock a vote, would have to go, but this is not so radical a change in industry as we have made many times already, politically, and after representation in industry has been once fully adopted by the great corporations of the country we shall wonder how we ever tolerated the old forms of industrial autocracy.

The democratization of our corporations would alone be enough to revolutionize our industrial world. Corporations today dominate the business world. There are a million employees working for our railroads alone. As corporations think and act so will all other business think and act if it should be thought wise to extend the principles of industrial democracy farther. If we should bring about industrial democracy in our corporations by some plan of universal

industrial suffrage, the problem of industrial democracy would be solved.

But how shall we get the corporations of our country to adopt any such scheme of universal representation? This is the final difficulty which we have to meet. If we can satisfactorily answer this question we shall be able to make the corporations do what we desire in this matter. Then we shall have representation in industry. Industrial democracy will follow. And the final result will be the emancipation of labor and the public and the solution of our economic problem.

There are two available methods for getting the corporations of our country to adopt representation in industry in the sense in which the term is used herein. One method would consist in the voluntary adoption of the plan by those who are engaged in industry. The other method would consist in the involuntary adoption of the plan thru a positive requirement of law. Each of these methods will now be given some consideration.

The voluntary adoption by corporations of the plan of representation herein set forth, could be brought about by a campaign of education. If the law of service instead of the law of selfishness, the art of combination instead of the art of competition, and the worth of co-operation as compared with individualism were all taught the people of this country as they might be taught it would not be a generation before the corporations in this country would voluntarily adopt the principle of representation in industry, or industrial democracy. The theories of individualism, competition, and *laissez faire* which we have been learning since the time of Rousseau and Adam Smith are false. It has already been proven that they are not true. Competition inevitably leads either to monopoly thru the elimination of competitors or to monopoly thru the combination of competitors. Business men have learned that competition is not economically sound, and it is impossible now to compel them to compete. But if it were possible to compel them to compete it would be wrong to do so. Co-operation and service are not only laws of Christianity, they are also natural laws and in harmony with the laws of the universe. The law of evolution when it reached the human stage took a new turn. The man who is fittest to survive is not the one who can kill and destroy the most men, but the one who can combine with the most men in plans of mutual helpfulness. If these truths could be taught for a generation, industry would be revolutionized inside of that time. It took Japan and Germany no



longer to revolutionize their peoples by means of education. The teachers in our schools and colleges, the preachers in our pulpits, our newspaper and magazine writers, and our lawyers and legislators and orators should all be teaching these old truths which we are now newly discovering, and if they were, little by little our business methods would be removed from the old foundation of paganism to the new foundation of Christianity. This would be all that would be required.

The world is on the threshold of industrial democracy. In my judgment the next stage in the evolution of labor will be either industrial democracy or compulsory arbitration between capital and labor, with certain rights of the consuming public guaranteed in either case. Which shall it be?

The tide of public opinion is setting toward industrial democracy. Lyman Abbott declares that "In most organized industries the tool workers want, and ought to have, some voice in the conduct of the business." David A. Brown, President of the General Necessaries Corporation of Detroit, Michigan, maintains that: "The day of capital control of business is about to pass and in its place is to come employee control." Mr. H. L. Johnson of the Endicott-Johnson Corporation, manufacturers of shoes, whose proud boast is that they have never had a strike or other serious labor dispute, says: "Workers should be represented in the management and on the Board of Directors, not necessarily with a man from the ranks but by some one who has their interests really at heart and in whom they have implicit confidence. I think our workers are happy to leave their representation to G. F. Johnson and after him I think they would be willing that I should represent them, but they must be represented."

The economists of this country, with the exception of a few of the old classical economists, following the lead of Richard T. Ely and John R. Commons, have already repudiated the doctrines of Adam Smith. The British Government has already committed itself to industrial democracy and to a plan of joint representation of capital and labor which is a large step in the direction of realizing it. The Catholic Church of America, or at least four bishops and other leaders of that church, and the Methodist Episcopal Church of Canada have pronounced in favor of industrial democracy and advocate a plan which will bridge the gap, left by the British plan, between capital and labor. In addition there are prominent writers and in-

fluent bodies of people in this and other countries who have already spoken in clarion tones upon this subject.

A still more significant sign of the times is the action which has already been taken by some of our largest corporations (already more than 250 in number). Among these may be named the Bethlehem Steel Corporation, the Midvale Steel & Ordnance Co., the Standard Oil Co. of New Jersey, the Colorado Fuel and Iron Co., the Lukens Steel Co., the Youngstown Sheet & Tube Co., the Inland Steel Co., The International Harvester Co., the Willys-Overland Co., the Packard Piano Co., the Computing Scale Co., the Filne Store Company (Boston), Wappinger's Falls Print Works, the Goodyear Tire Co., the Proctor and Gamble Soap Company.<sup>1</sup>

These corporations have already evolved plans which, like the Rockefeller plan, provide for adjustment of disputes and for collective bargaining, give the employees a chance thru their representatives to meet and confer on questions which have hitherto been supposed to belong to the management, and insure regular meetings between the representatives of the men and of the officials of the company. This would seem to be a long step in the direction of industrial democracy. Yet in most cases it is not industrial democracy. It rather indicates the growing power of labor and shows the trend of events. Collective bargaining is being recognized. Well-organized companies have hitherto dealt with the employees more or less as individuals. Now the companies must deal with the employees as well-organized groups. These groups have been given a voice with the company in a great many matters outside of direct management. This means, not that the contest between capital and labor is over, but that the contest hereafter will be conducted upon more even footing and according to some principles of right, and that labor will soon secure its emancipation. But we shall not have true industrial democracy until the contest between capital and labor is abolished, and this will never be until labor is given a voice in management to the same extent that it has been given a voice in other matters.

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<sup>1</sup> As this article goes to press there comes the news that the Proctor and Gamble Company has adopted a plan of industrial democracy wherein its employees are to be given representation on its board of directors. In the Proctor and Gamble plan the qualified employers will nominate to represent them five men from whom the stockholders will elect one to the directorate.

Will the capitalists who have their money invested in corporations take the next and last step towards industrial democracy? All of the signs point in this direction. Some corporations have already taken this step. For others it would not be any more radical than steps they have already taken. There is little danger of corporations retracing the steps already taken. There is little likelihood of their remaining stationary. It follows that they are going to go forward, and, if forward, what is there but industrial democracy?

It goes without saying that the workers are in favor of industrial democracy. They will not only accept it if given them, but they demand it. The industrial unrest and troubles of the world are largely due to the fact that the workers are not given a voice in industry. The pronouncements of the labor organizations of this country and of Great Britain, France, and the rest of the civilized world are sufficient proof of this statement.

With this universal attitude on the part of labor, and with so many large capitalists already voluntarily proposing to take measures in the direction of industrial democracy, it would seem possible to procure industrial democracy by voluntary action. The experiments in this direction are succeeding so well that they are going to commend themselves to other capitalists. Organized labor is becoming stronger and stronger and it is going to become continually more difficult to keep it industrially disfranchised. The spirit of democracy which is abroad in the world is going to help the movement. The last World War in its final effects is almost sure to weaken the power of capital. The political economists in our schools with their new theories of co-operation, and the preachers in our churches with their new social gospel of Christianity are exerting an influence which is incalculable.

However, if representation in industry will not come voluntarily, because of the opposition of reactionary and autocratic capitalists, there is a method of obtaining it thru political action. A law on the statute books would settle the question as to future corporations, and under the power of taxation it could legally be required of every existing corporation in the United States. Of course the same thing could be accomplished by an amendment to the United States Constitution, and this would not be an insuperable task. Some system of proportional representation, based, not on geographical location but upon vocational location, would be a great help in the way of obtaining both political democracy and industrial democracy.



If those employers and capitalists, who in the past have been opposed to industrial democracy and are now insistent upon industrial autocracy do not soon get a new and better social viewpoint, political action is the best action for the champions of industrial democracy. The wars between capital and labor which have characterized the past must cease. There is a better way for laborers to procure their just demands than by strikes, boycotts, and other forms of self-help, with all of their attendant suffering and inconvenience and loss to society as a whole. It ought no longer to be necessary for them to resort to these methods, and it is not necessary. Industrial democracy will cure their industrial grievances, and the ballot can give them industrial democracy.

There is no more anomalous thing in Anglo-American history than the spectacle of the physical strife between capital and labor. In countries whose proud boast has been of the reign of law we have had the spectacle of two classes which have never had to take their disputes to law. In countries whose chief pride has been their political institutions and the arbitrament of the ballot we have had the spectacle of two classes whose troubles, tho state-wide, have never been submitted to a vote of the people. Instead they have continued to settle their grievances and wrongs in the crudest, most primitive way know, not to civilized, but to savage, man—by private war. This is intolerable in the twentieth century. One would suppose that both capital and labor would desire a new order of things and bring it to pass. If they do not, society will accomplish it.

The effect of the introduction of representation in industry into the corporations of this country will show better than anything else the wonders which would be accomplished and the desirability of the reform. At once the gulf between capital and labor would fill up. There would no longer be two antagonistic, opposing, classes, each facing the other in deadly array. There would no longer be the clash of selfish interests. The normal human spirit would be given a chance to respond to the call of service instead of to the lure of private gain. Strikes and boycotts would be no more. Human welfare would receive more consideration than dividends. Men would not begin to desire interest until all associated with them had at least a living wage. Conditions of labor would be improved. The hours of labor would be reduced. Matters of housing, recreation, education, and health would not be forgotten. Yet with all this attention to man rather than to money, the chances are that money in the form of dividends would flow just

as freely as under less democratic conditions. The experiments of Henry Ford in his personnel work and the experiments of the Endicott-Johnson corporation are sufficient proof of this. Contentment would reign where dissatisfaction now holds sway, and where contentment reigns efficiency is liable to be not far away, but even if the dividends should not rise as high as before, perhaps the contentment and happiness would count for as much as some of the missing dollars.

The brains of the workers would be utilized in the management of the business. In the past industrial autocracy has been shamefully neglectful of this means of improving the efficiency of business. Who ought to know the most about how a business, like a factory, or a railway, or a great store should be run, those who have been working in it for years and are familiar with many of its details, or stockholders who do not work in it at all and perhaps even live hundreds of miles away from the business. Under industrial democracy this great army of workers would be mobilized for effective work in the management of the business and as any of their numbers might show executive ability they would be promoted to positions of responsibility.

# The Nature of Democracy

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## DEFINITION AND AMBIGUITY

The word *democracy*, like the words *religion*, *justice*, and *socialism*, has many meanings. Every person has his own conception of it; and hence there is much discussion, pro and con, in regard to its connotation. All such words are ambiguous, and give rise to disagreements among men and among peoples. It is probable that most misunderstandings would be cleared up by means of friendly conference, if the parties at interest would put all their cards on the table. They would then be constrained by the facts to become like-minded, if they honestly seek the truth instead of seeking to win. John Locke said that two persons would come closer and closer together in thought, and finally agree, if they would possess themselves of all the essential facts, lay aside all prejudices, and seek truth as their sole aim. A person who is honest can not believe simply what he wishes; he believes what he must.

Democracy is a concept that needs to be analyzed if we would understand one another when we converse about it. Words are simply a means by which the thought of a speaker is reproduced in the mind of the hearer. But if the words are ambiguous, a true *replica* of the speaker's meaning does not arise in the hearer's mind.

Even when different persons seem to have the same meaning for a word in the abstract and in general, they often find that the connotation of the word differs radically when they begin to act upon it.

So it is with the concept *democracy*: it is a fine-sounding word in general and in the abstract; it has a kind of humanitarian appeal, and it has been made use of in the past as well as in recent years by kings and peasants alike. The millionaire and the down-trodden serf proclaim democracy as a desirable goal. Labor and Capital sing its praises, and both proclaim that true patriotism consists in upholding it as the ideal. And yet these different persons and classes have divergent meanings in regard to its essential nature and in regard to its practical applications.

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\* Exchange Lecture delivered at the University of Manitoba, Winnipeg, March 19, 1920, and repeated at Convocation, University of North Dakota, April 1, 1920—slightly modified in view of each setting.



## AN ERRONEOUS CONCEPTION

As there are depths and depths to a truth and as there are many meanings of democracy, let us consider it from several points of view for the purpose of getting a glimpse into its depths and a realizing sense of its essential nature. A meaning, like a truth, grows shallow in a shallow mind; and, on the other hand, it may reveal a depth of riches undreamed of by others to those who are able and accustomed to think.

Democracy means to some people simply the form of government; this has been especially true during the last few years. Many imagine that a people can put democracy on or off, over night or on the spur of the moment, as one would put on or lay off his coat. This, however, is only the most superficial conception of democracy. Governmental democracy, even when real, is only one form; and the form itself is only an incident in the deeper life of a people. Alexander Pope said—and with much truth:

“For *forms* of government, let fools contest;  
That which is best administered is best.”

## KINDS OF GOVERNMENT

The word *democracy* had its origin in the governmental aspect, for it comes from the Greek word *demos*, meaning the *people* as distinguished from the rulers. The term came into use and the concept was subjected to analysis and criticism by the Greeks at a time when society was struggling to adjust and readjust itself politically, both internally and externally. There was much discussion by Greek leaders, and many turbulent contests as to whether government should be by one person, thus constituting an autocracy (*autos* meaning self and *kratos*, rule); or by a few of the self-styled *best*, thus giving rise to an aristocracy (*aristos*, best); or more or less direct by the citizens as a whole, thus producing a democracy. There were then, and always have been, in the world, various degrees of these three kinds of government, expressing in external form the source and direction of the governmental authority among men.

In an aristocracy the few who are considered best and most fit to rule have sometimes regarded themselves best on account of their birth and blood, and sometimes on account of their wealth and the social and political influence which always go with it. Plato in his *Republic* would have an aristocracy, but this would be of brain and mind, and not of blood or wealth. This, of course, would be the

best kind of an aristocracy, if a people were compelled to accept this form of government.

### THE DIRECTION OF POWER

But if we consider even this best form of aristocracy it will be seen to fall far short of what is desirable for the life and growth of a people.

It will be obvious on reflection that in a real monarchy, one in which the monarch is the primary power, or even in a real aristocracy, the source of government is from without the people and is applied to them and upon them. The rule is, in other words, *heteronomous*; that is, from without. The rulers legislate and administer, and the people obey—it is theirs not to reason why, theirs but to do or die.

On the other hand, the fundamental idea in a democracy is that initiative may come from the people themselves, and that governmental functions receive their sanction and derive their validity from them; it is government in which the people rule, instead of being ruled.

The two contrasted situations find an illustration by analogy in the process that goes on in the construction of a house, on the one hand, and that taking place in the growth of a tree, on the other. In the former case the builder works *ab extra* and the material is as putty in his hands. This is what may be called the mechanistic idea of growth or development. The tree, on the other hand, develops by a power *ab intra*; and this may be called the vitalistic conception of growth. An autocracy or aristocracy corresponds to the former, and works upon a people *ab extra*; while a democracy corresponds to the latter, and works, like a leaven in the mass, *ab intra*. The one is heteronomous and the other is autonomous.

An animal is more democratic in its life activities than a plant, for it has more self-determination. Man has still more inner freedom and hence is more democratic than the lower animals; and the more intellectualized, moralized, and individualized a man is the more democratic his life is, and the less is he dominated autocratically in thought, feeling, and action by some one else.

### MILITARY GOVERNMENT

Military government is more autocratic than civil government, for orders and determination come to the many from the few, and

hence from without. The motive power in military rule is largely force, while that in civil government is influence, working in the life of society from within. Some of the bitterest complaints from our boys who came back from the service were in regard to the snobbery, autocracy, and aristocracy that seems to have pervaded our new army. In ancient times military power, when successful, was frequently, and indeed usually, transferred to the civil realm, and then there appeared the "man on horseback." Many of the Emperors of Rome, including Julius Caesar himself, had been head of the Roman army; but they were not sufficiently possessed of the democratic spirit to refuse, as Washington did, imperial power.

Democracy has grown, with civilization, in the minds and hearts of men; and it was refreshing and encouraging to see all the military leaders in the Great War forego the glory of a military victory and willingly bow to the civil and democratic power of their governments.

#### MORALIZATION AND DEMOCRACY

But let us leave the governmental situation for a few moments, and see the trend of democracy in the process of moralization which takes place in every normal person. It is true, none of us ever become completely moralized. The process is one that goes on from the cradle to the grave, and many do not get more than half way to the goal. Mr. Roosevelt once said that a few persons are really honest but that the many are merely "law-honest:" that is, they would take any advantage not actually prohibited by law. Most people, I think, will not stand, morally, without being hitcht.

Let us look at the process of moralization from childhood up to the stature of the moral athlete:

(1) The standard of right and wrong for the child is his wish, his craving, his desire, his likes, his appetites. Desirable things, like food, sugar, and candy, rule him absolutely—he is a real slave to *things*. Even savages—who are children, racially—will gorge themselves today and starve for the next week. The child and the savage are dominated by the objects of their desires: it is an illustration of genuine heteronomy; there is no democracy in it, for it is a government from without.

(2) A step higher is manifest when the child is governed, not by things but his parents and by his elders generally—by authority. But here, too, it is government from without; it is heter-



onomy; tho a loving and beneficent one. The child recognizes this, and submits with a degree of willingness. The home, in fact, *must* retain an element of monarchy, even when it attempts to develop as much self-government as possible; for it is dealing with those who must be taken care of in the interest of all. But it is tacitly admitted here that the more remote aim, while not yet possible, is self-determination, true democracy.

(3) A step still farther along in the process of moralization comes when the child begins to assert himself and to question the wisdom of his parents. He craves self-determination, and often asks *why* he may not do what others of his age are allowed to do by their parents. This is not a bad sign, even if it brings a clash and a pang to the parents; it is evidence of normal progress along the road of moralization.

(4) Still another step is taken when the youth begins to estimate effects. Conduct is then not mere imitation of others; it is rather a matter of thinking and of ideals. The child says, for example, that he can not see what harm it is to go skating on Sunday, to play cards once in a while, or even to play marbles for keeps. He calculates consequences, and wishes to know the *ground* of right and wrong. In situations like this some parents, mistakenly but unintentionally, obstruct the current of a child's thought and feeling by over-severity, and as a consequence the whole stream of the child's moral life sweeps the dam away in a torrent, and he may then possibly go in the direction of a moral wreck. Rightly treated by a wise parent these stumbling-blocks may be made stepping-stones on the road to a genuine moral self-government, which means moral democracy.

(5) The final step in the moral process is where the individual acknowledges the wisdom of the race, takes upon himself the moral law, and then acts in conformity with it, regardless of the allurements of desire or the example of others. This is *self-government* and true moral democracy. It is autonomy in the true sense, and a far cry from the heteronomy of his childhood, when he was ruled by the objects of his desires or by parental authority.

#### INTELLECTUAL DEMOCRACY

Democracy in the intellectual and educational order shows a similar course and trend:

Children are extremely imitative, not only in manners and mor-

als but also in the field of thinking: and indeed we are all, to a greater or lesser extent, children. Parents, teachers, and elders generally, do most of the thinking for children. We would not have it otherwise, for most of the common knowledge of mankind was wrought out and formulated thru the bitterest experiences of mankind. It is knowledge that has been verified on an extensive scale, and it would be foolish and wasteful to have every person attempt to attain it *de novo*. Conclusions and judgments are usually accepted ready-made by most of us. Real thinking is extremely arduous work and only the few are willing or able to engage in it. In fact real thinking is one of the most difficult and one of the rarest feats in human life. The many are content to accept the conclusions arrived at by others.

#### AN INTELLECTUAL HETERONOMY

The rewards of thinking are, on the other hand, the most delicious in human experience; and there seems to be an innate desire to spread one's conclusions among others. Intellectual producers are possessed of the missionary spirit. This, no doubt, is the explanation of the wish which has come at some time to every intelligent and laudably ambitious person, to become an editor or journalist of some type. Every one is by nature a propagandist of his own thoughts.

But where the many accept without question or criticism the thinking of the few, it is not possible to have an intellectual democracy. A newspaper with a great thinker and writer in the editorial chair wields a power over its hundreds of thousands of readers that may in effect represent a genuine intellectual autocracy. The New York Tribune under Horace Greely, the Sun under Charles A. Dana, and the London Times under Lord Northcliffe have been examples of quite real journalistic monarchies. It happens too that in every situation of this kind the reading clientele becomes more and more solidified into loyal subjects as the years go by. Many readers swear by the editorial attitude of their newspapers. They become fashioned and formed in their thinking by the master mind at the head; and they often flatter themselves that they have discovered a thinker after their own heart, when it is they who have been fashioned after his. We can have a real democracy in the field of journalism only when readers do a fair share of their own thinking, and where the editor is mortally afraid, knowing his read-

ers, lest he be caught and convicted, in their judgment, of false reasoning or of flagrant misrepresentation of facts.

### THE NATURE OF INTELLECTUAL DEMOCRACY

As in the case of morals, the ability and the habit of doing one's own thinking is a matter of growth under careful training from childhood up into adult life. One can not lead an intellectually democratic life unless he can bring a reasonable harmony into his thought and life. If he does not think himself thru to conclusions he lacks self-government from the intellectual point of view: his thinking is not autonomous; it is heteronomous, for some one else must tell him what thoughts and conclusions are proper for him.

The process of educational democracy is well illustrated by two types of teachers and schools. In one the teacher dominates the situation so persistently that the pupils become passive recipients. The appeal is made to their memory, and they accept the teacher's dogmatic statements without question. Such a school is intellectually vicious, for it chills and kills all true thinking, and defeats its own end and aim. The other type of school is just the opposite. In the ancient world it was exemplified by Socrates and his method. The chief aim of any school is to induce and develop thinking on the part of the students, and to lead them well out along the road of initiative, of good mental habits, of activity, and of clear, independent thinking.

### OTHER FIELDS

The spirit of democracy is manifest also in varying degrees in other fields of human activity, notably in social relations and in those of the industrial world. It would take us too far afield to enter here upon a discussion of social democracy and industrial democracy. Volumes are written upon each. Suffice it to say that the spirit of democracy is at work in the social relations of man to man, and in the relations of Capital to Labor, in practically every nation. It is evident that democracy is no single or simple thing, like the mere form of government.

### INNER VS. OUTER

The contrast between the inner and the outer motivation, the democratic and the autocratic processes, may be seen in every field of human thought and activity. It is evident in creative art as



compared with imitative art—if such can be truly called art. It can be seen also in the religions of the world, where, on the one hand, the dominant motive may be love and conscience or, on the other, fear and authority. Christianity is essentially democratic for it stresses the inward spirit. Christ was undoubtedly the most democratic religious teacher of the world, and it was he who said, “the form killeth but the spirit giveth life.” It is true that in government, morals, education, religion, and art there must be form, externality, and authority; but if these receive the primary accent rather than the secondary they will make any system heteronomous and autocratic rather than autonomous and democratic.

### DEMOCRACY IN GOVERNMENT

Let us now return to the governmental point of view, from which the concept originated.

Every nation has a spirit of its own. This tone, temper, attitude, and culture of a people are often called the “national spirit.” And as there are no two personalities alike, so there are no two nations alike in the culture that characterizes them. As a person is a body and a soul, so a nation may be said to be analogously constituted; and as a personality is the result of one’s heredity and of all his thinking, feeling, motives, ideals, and attitudes, so the spirit of a nation is a composite of tradition and of all the nation’s experiences, attitudes, and ideals, also.

No nation is completely democratized, any more than are individuals completely moralized, intellectualized, or religionized. It is, and always will be, a question of degrees. Most people never reach the half-way station toward the goal, in morality, in thinking, or in any human endeavor; and since democracy points to the inward activity of the self, and autocracy to the outward influence of another, different peoples will be found at different distances along the road toward the democratic goal. As individuals are only partially democratized, so every nation can only partially embody and express the democratic spirit.

### ATTEMPTS AT DEMOCRACY

The longing for individual freedom is as old as the human race: it is an instinct of the human heart. No one knows how often the spirit of democracy was stamped out by the autocrat before the dawn of history. In ancient historic time, attempts were made to

realize the democratic ideal. Christian teachings, emphasizing the ideals of the Master, worked as a democratic leaven in society. The Magna Charta was a signal and notable step forward in English life and in the evolution of democracy. Nearly every country has had its democratic heroes and martyrs; and these in turn became the ideals and the inspiration of future generations.

#### THE "SHOT" HEARD ROUND THE WORLD

The following sentiment for the Concord Monument, by Ralph Waldo Emerson, well expresses the influence of America in the spread of democracy thruout the earth:—

"Here first the embattled farmers stood  
And fired the shot heard round the world."

His prophecy has really come true; for after the Revolutionary War, England herself took long strides toward democracy. The French Revolution was the answer of France; the "shot" reverberated thruout South America from 1812 to 1825 under the leadership of Simon Bolivar. Democracy spread westward appearing in self-governing colonies in North America and in the vast Pacific. In our own day China herself, the Celestial Empire, donned the garb and name of "republic;" and a few years ago the greatest autocracy the world has ever known, fell, and Russia is still in the throes of revolution, attempting to find herself and to give expression to her democratic spirit and ideal. Thus the "shot" has literally been heard round the world.

#### AN EXTREME

A true conception of democracy in the political sense does not imply a lack of differentiation of structure and specialization of function. Such a lack would indicate a low degree of organization, just as it would indicate an inferior organism in the biological realm. The higher forms of life manifest increasing heterogeneity and integration. And if democracy, which is interior and intelligent self-control in a people, is the latest and highest form of government, it must likewise leave ample room for the expert and the specialist. Order is heaven's first law; and the idea that in a democracy every one should have a determining part in everything, is, in fact, self-contradictory. Such would be a pseudo-democracy, for it would inevitably lead to inefficiency and to anarchy. Orderliness and duly constituted authority are essential in a democracy; they are just as necessary in political life as in the intellectual and moral order,

He is not less free—but more—who governs his life according to law; and a state is not less democratic—but more—which governs its life thru the team-play of its members. Efficient, or representative, democracy refrains from choosing policemen, doctors, engineers, or teachers by popular vote. A people who would do this are simply not ready for democratic government; they are passing into that stage of false democracy which will give rise to autocracy or perhaps tyranny—first of the mob, and then of “the man on horseback.”

#### THE FORM AND THE SPIRIT

If the individual is not self-governing, self-thinking, and morally self-determining, a nation made up of such persons will be just as democratic as the average of its individual citizens—no more and no less. Nor does the *form* of government always indicate the nature of the inward spirit, any more than a man's outward appearance is an infallible indication of his disposition and character. A people or a nation may have a democratic *form* of government, and still be either unable or unwilling to live a democratic life. A nation may have the democratic desire, aspiration, and ideal to the extent of 80 per cent, and yet have only 20 per cent of the ability to realize it; while in other cases the realization may exceed the form and the profession.

In Mexico, for example, there is a line of cleavage, separating two different classes of people. The upper class comprises some thousands of people of Spanish descent known as Creoles. These are, as a rule, educated, refined, and cultured. They are the propertied class of Mexico, and are as a consequence the ruling class. The government, called a “republic,” is in their hands. All the other inhabitants are true Mexicans—hospitable, they say, reasonably industrious, and kind, but propertyless. The land of Mexico—over 700,000 square miles—is owned by about 700 families, or about 1,000 square miles each. It is impossible to have there a real democracy for all of Mexico. The peons are virtually slaves. They are uneducated. There can be no real moral or intellectual democracy in a people like this; nor can there be a real governmental democracy, except in name, for some generations to come.

#### THE NAME AND IDEAL

Mexico can not have a republic or a democracy to exceed probably five or ten per cent in efficiency. But when a people or a



government adopts, even by imitation, the name *republic*, there is a tendency to live and develop in that direction. Nearly all the countries of South America, early in their history and at a time when their national spirit was not as yet democratized to any great extent, adopted the name *republic*. Brazil for a long time held fast to the idea of autocracy, under the leadership of the Emperor Dom Pedro; but it, too, owing to the spirit of the whole western world, finally asserted its democratic tendency and became a republic. The autocratic and aristocratic spirits of continental Europe attempted for some generations, thru the so-called Holy Alliance, to retard the growth of democracy on the American continent, but the tide could not be stemmed, even in Europe.

### OUR STATUS

Some enthusiastic Fourth-of-July orators would give us the impression that we have, in the United States, from 90 to 100 per cent of democracy; but this is wide of the mark. Not that we do not desire it, but because, as a people, considering our great average, we are not able to possess it.

There are few, as we said, who are thoroly moralized; to whom we would entrust our money; whose morality is interior, sincere, and dependable. We can not yet dispense with supervision, investigations, and audits. It is probable that we are not yet over 30 or 40 per cent democratic. The late war brought out the fact that the average education of our four million of enlisted and drafted men was that of the sixth grade. These four millions must be quite representative; and in a people whose intellectual average is the sixth grade, the power to think and to lead must be limited. But without widespread intelligence and education there can be no efficient democracy.

### LEADERS AND FOLLOWERS

There is, too, in human nature a tendency toward hero-worship, an inclination to follow others and be content with the line of least resistance. The few are the leaders, and the many are followers. It was this fact and this characteristic, no doubt, that led Aristotle to teach that some men are naturally slaves, while others are naturally free. Under this conception the free would be the leaders and the rulers in every walk of life. But while it is true that, relatively and comparatively, only the few are leaders and the many

are leaners, the inference or conclusion is neither in favor of autocracy nor slavery. There is ample room left for democracy, with the spread of education, socialization, and individualization. The more individual all become and the more thinking there is, the farther along a people are on the road toward democracy.

#### FREEDOM OF SPEECH AND TOLERATION

In a real democracy, also, a large measure of freedom of speech and of the press and a genuine and interior toleration of those rights and privileges in others that we would claim for ourselves are a pre-requisite, the very foundation, in fact, of any essentially democratic spirit and government. There can be no true freedom, no popular liberty, without these. They are the unfailing symptoms of a sound and healthy democratic body politic. I regret to say that during the war period, there were many petty outbursts of intolerance, and many suppressions of entirely proper and wholesome free speech and free assembly. In some localities so-called "patriotism" even degenerated into a negative and blind attack upon foreign languages and foreign art. And even recently there have been undemocratic waves of feeling and of action against men and whole classes who have been epithetically characterized as "Socialists," "Bolsheviks," "Anarchists," and "Reds." In some cases trial by jury—an immemorial right under English and American law—has been deliberately ignored. Recent attempts have been made in this country to move in the direction of alien and sedition laws, while England and other more war-swept states are moving away from such a policy. I do not hesitate to brand such attempts as undemocratic and un-American, and I do so because I love my country. We should exhibit, in America, especially, a type of democracy that is safe for the world, just as we have tried to make the world safe for democracy.

#### CONCLUSION

All democracy, then, "in the large," as Plato would say, rests upon democracy in the individual—upon self-government, self-determination, in various directions. To govern others politically but democratically we, ourselves, must be self-governing. As Thomas A. Kempis said, "He who governs himself is better than he who governs an army." But democracy in the large is vastly more than political and formal democracy. It connotes self-determination morally, in-

tellectually, socially, industrially, religiously, and artistically, to the fullest extent under the golden rule, and it implies such toleration in the freedom of thought, speech, and conduct as we desire and claims for ourselves under like circumstances.



# The Improvement of the Rural Communication System

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The situation relative to roads and other communicating agencies changes so rapidly, due to the invention of new agencies and the discovery of improved materials and methods, that what is written today is in danger of being displaced tomorrow. We may see as revolutionary consequences flow from the widespread use of the dirigible and aeroplane as resulted from the construction of the Erie Canal and the invention of the steamboat and locomotive. The invention and general employment of advanced road making machinery may quickly extend a good road system over our entire populated domain. The improvements in road building already attained in recent years have made it necessary to discard very recent materials and methods and have rendered costly undertakings almost worthless. An example of this is seen in the road building enterprise of the state of New York. A few years ago that state undertook to build 12,000 miles of macadam highway. With the advent of the widespread use of the automobile and the motor-truck, it was discovered that this expensive system of roads would be worn out forty years before it had been paid for.

Nevertheless it is possible to make some statements worth while. It is evident that highways are going to be employed by the masses of men for some time to come and that their social and economic importance render consideration of their improvement necessary.

## I. SIGNIFICANCE OF COMMUNICATION

For the purpose of our treatment we will use the term communication as signifying the material agencies which serve as vehicles of goods, persons, thought, and speech. The telegraph, the telephone, the press, railways of all kinds, navigated canals and rivers, highways and the vehicles which traverse them, and the agencies that use the air are comprehended under the term. While the majority of these will be included in treating the significance of communication, our chief attention afterward will be devoted to highways and

roads, because their improvement is now imperatively and immediately demanded.

A consideration of the significance and results of communication is important because it will assist us to see the value of undertaking the improvement of highways and other agencies which relate people and communities.

Let us notice how communication is the condition which determines much that takes place in rural life: (a) The ideas and level of intelligence of a neighborhood or community are dependent on the kinds and quality of the communicating agencies. Where they are all present in a developed form we expect to see an advanced people; to the degree they are absent or undeveloped we are not surprised to find a backward region. Pockets and valleys in hills and mountains, cut off from each other and from the rest of the world, are conspicuously laggard. (b) Individual and community prosperity depend in large measure on the development of roads and other transmissive agencies. Advances in production await new ideas. Intelligence, so necessary for planning and management, does not thrive where mind cannot have contact with mind. Were a high degree of production possible without roads and other transfer instruments, it would be impossible to get its results to the markets of the world. (c) Even health and physical efficiency may wait on contact and transfer agencies. Rural inhabitants have their share of physical defects and diseases. Knowledge of sanitation and hygiene, the ministrations of physicians and nurses, the dissemination of ideas of health by talks, clinics, and medical inspection of schools, alike depend on the degree of advancement of roads and vehicles, telephones, the press, and public meetings. (d) Rural social organization and community engineering depend on the condition of means of communication. Trails of a more or less developed kind were the original foundations of the community spirit and of social organization. Neighborliness and sociability are the outcome of the possibility of interchange. Community activities may not grow in the ratio of the development of roads, telephones and the like, but they cannot occur without them. Without speech of some sort there can be no exchange of ideas, and without the material extension of speech and the transfer of persons, community and collective enterprises languish.

There are certain general benefits bestowed on rural populations by the development of our really modern agencies of communication: (a) Modern populations are fluid and our American rural inhabitants do their share of moving about. The steamboats and the railways have had a large share in promoting the expansion of agriculture over the west-Appalachian regions. They speeded up the settlement of the prairie hundreds of per cent. Now the press, the railway, and other agencies promote the large flow of rural peoples between agricultural regions and accelerate the already extensive migration between country and cities. (b) Modern means of transportation and transfer of news have rendered nearby and distant markets accessible to farmers. World markets and world prices were born of rapid transit of goods and market reports. As a consequence, farming populations have been closely organized and articulated into the world economy. Large area production and crop diversification, in turn, have been promoted by the establishment of markets and easy access to them. It will be noted later how important the improvement of our highways is to the promotion of the marketing of farm produce. (c) Modern means of communication have encircled the farmer and bound him more intimately into the world-wide social solidarity. He has become not only a more consequential determining factor in the affairs of his nation but participates in world citizenship. His voice is heard in international affairs, in the making of treaties of peace and leagues of nations because he has become informed on affairs at large and has effected organizations of his own by reason of the rapid spread of information and ideas. (d) But there are also certain tendencies toward the disorganization of rural communities consequent to the easy and quick spread of ideas and the transfer of persons. A later study will reveal in what way rural populations and interests are being disturbed by the movement out of the country and competition between small towns and distant cities.

## II. DEFECTS OF THE ROAD SYSTEM IN THE UNITED STATES

In order to get before use the larger idea of the necessity of road improvement in the United States it will be well to consider the defects of the highway system. Since there are a large number of them, each one must receive only a brief treatment.

1. Small amount of improved roads. Statements of the road mileage in this country range from 2,300,000 to 2,500,000 miles.



The latter figure does not seem large when it is remembered that continental United States embraces an area of 2,900,000 square miles. Only about ten per cent of the mileage is improved, that is, surfaced in some way. This looks very inadequate for national requirements when compared with the improved mileage of some other nations: 100 per cent in Austria, Denmark, England, and Wales, and 84 per cent in France.

2. Small unit of administration. The unit of administration is commonly the township which is divided into a number of road districts, each with its road supervisor. Each district is apt to be regarded as a law unto itself and its roads built without reference to those beyond its borders. Kansas has four county road officers for each of its 105 counties, and 7 township officers for each of its 1,492 townships, giving it 10,900 officers to construct and supervise 105,500 miles of highway, about 1 for each ten miles of road, perhaps three times too many. Independent petty officials result in a lack of coordination of roads. But roads are not local affairs. The road in a given district may be used more by those living beyond the district than by those within. The construction and maintenance of a section of a highway may be of county, state, or national importance, and the unit of administration should be sufficiently extensive to provide adequate coordination.

3. Unskilled supervision. Along with small units of administration goes unskilled supervision, almost as a matter of course. Local farmers are elected as supervisors of the road in their district for a year at a time. It cannot be expected that the average farmer is a master of road construction, and the experience he gains in office is likely to lose its force for the supervisor is soon displaced at an election. The result can only be unsatisfactory and uneconomical roads. It is estimated that of the 200 to 300 millions of dollars spent annually on the highways of the nation 30 or 40 per cent is wasted or misdirected, largely thru the inefficiency of the system of administration and of officers. When we are approaching the time where our roads must cost from \$3,000 to \$25,000 a mile, it behooves us to establish a system where every dollar expended will count.

4. Backward method of raising revenue. If the township and district units of administration are inefficient because too small,

the same will be true of the unit of taxation. Revenue for building roads has been almost entirely raised by local taxation, until recently. Under such a system, a county or state need may be defeated by the failure of the local unit to tax itself to construct or repair the road. The practise of resorting to a poll tax and having it workt out on the road and of depending on local farmers to furnish the labor and motive power for road construction are devices necessary in pioneer days but inadequate for developpt sections.

5. Inadequate road machinery and equipment. This is also partly the consequence of small administrative units. Even the grading and packing of dirt roads in a competent manner calls for giant graders drawn by ten or twelve teams or a large tractor and heavy rolling and packing devices, usually a motor-packer. The district or township will not or cannot afford to purchase this expensive but effective machinery, and content themselves with small graders, perhaps with horse scrapers, and dispense with packers.

6. Inattention to grades. Animals, primitive men, and pioneers generally follow ridges or valley in locating their trails, thus avoiding cilmbing steep hillsides. Our gridiron system of laying out the public domain into square townships and sections has compelled highways to follow straight lines, irrespective of declivities. Also because of the dearth of equipment for cutting down hills and the great expense of grading, local road builders have been negligent respecting heavy grades. When it is remembered that the weight of the load drawn over a road is determined by the heaviest grade and that tractive power decreases rapidly with the increase of the grade, it is seen that heavy grades are wasteful.

7. Absence, or poor quality, of surfacing. The strain put on traffic during the Great War and by the increasing use of automobiles and motor trucks in recent decades has demonstrated the inadequacy of dirt roads and the inefficiency of much of the surfacing which formerly had stood up under the heaviest vehicles and traffic. On great highway arteries, as between large cities, where motor-truck traffic is heavy, even the old dependable macadam has been unable to sustain the wear and shock. It is not so much the surface wear as the breaking apart of the elements throuout the thickness of the structure, the organic disintegration of the layer, that occurs; and this has been true, irrespective of the kind of binder used, whether bitumen or water.

This new strain thrown on highways is indicated by the rapid increase of automobiles and motor trucks. In 1889 there were 3,723 automobiles in the United States; in 1912, 245,000; in 1917, 4,983,000; and now about 7,000,000. Some states have one auto to each seven of the population, almost one per family. A hill and mountain state like West Virginia has increased from 170 automobiles in 1905 to 30,474 in 1917. These figures denote that everywhere the roads are being subject to the disintegrating effects of this machine. The multiplication of motor trucks has been likewise rapid. In 1910, 9,500 were manufactured; in 1914, 35,000; in 1916, 98,000; and in 1918 they had increased to 250,000. Many of these were destroyed in the European war and a good many were exported by dealers. The larger portion, however, remain in America and call for the best roads man can devise.

8. Lack of classification and coordination. There is a vast difference in the economic importance of the various highways and, as a consequence, in the demand for expenditure in construction. France classifies its roads as national, or those connecting important cities and ports; departmental, those connecting less important cities and ports; and vicinal comprising four classes; those of thru travel, those of communal interest, ordinary vicinal roads, and rural roads. The cost of construction is in proportion to the importance of the road, ranging from \$9,000 a mile for the highest class down to \$2,000 for the ordinary vicinal roads. The cost of maintenance likewise grades down from \$346 to \$63 a mile (these cost data are for about 1910). A classification policy based on the economic importance of highways should be adopted in the United States, the classification up to the present time being largely artificial, such as state, state-county, county roads, merely signifying the source of funds.

Little attention has been paid in this country to coordinating our highways with the railways as integral factors in a national transportation system. This deficiency was revealed by the strain brought on traffic during the war. The railways were found to be insufficient, and motor trucks were resorted to extensively. The need now is to organize this motor-truck service into the national system of transportation as a permanent supplement to the railways. This has been recommended by the American Association of Highway Officials. The suggestion should be added that the magnif-



icent system of waterways internal to the nation should likewise be developed and organized as important factors of a great national transportation structure.

The immensity of traffic carried on on highways constitutes an added argument for their improvement and coordination. There are more than 25,000,000 mules and horses using the public highways of this country. The motive power they furnish together with that of auto and trucks bulks over 100,000,000 horsepower. The freight traffic on railroads amounts to something over 1,000,000,000 tons a year. Compared with this the tonnage on public roads is estimated at one and a half to two billion ton-miles, which, on the basis of an average haul of six mules, would total 250,000,000 tons. The passenger traffic on highways is greater than that on railways.

### III. ECONOMIC AND SOCIAL BENEFITS OF IMPROVED ROADS

In what has previously been said in this paper many of the economic and social benefits resulting from road improvement have become apparent. Their enumeration and treatment in one place, however, will serve to give to them greater definiteness.

The economic and social benefits resulting from creating good roads are numerous and significant. First are those arising from the reduction of grades. Frost says that experience shows that a good average horse can draw about 3,600 pounds on a level earth road in the best of condition, and that this load gradually decreases with the grade, lessening to 2,880 pounds with a 1 per cent grade (a rise of 1 foot in 100 feet) to 1,476 pounds with a 5 per cent grade, to 936 pounds with a 10 per cent grade, 360 with a 15 per cent, 144 with a 20 per cent grade. Gerhart says that tests have demonstrated that a horse which can pull 1,000 pounds on a level road can pull only 900 on a grade of 1 per cent, 400 on a 5 per cent grade, and 250 on one of 10 per cent. A hill offering a 5 per cent grade is not infrequent on highways but a team of horses has its load capacity reduced to 40 per cent by such a hill. It is obvious that reducing grades is a time and money saver.

Second, furnishing highways with a hard surface brings compensations almost as startling as does the reduction of grades, and it is said that poor surfaces are a greater hindrance to travel and load efficiency than are grades. It is estimated that a horse will haul from three to five times as much on a macadam road as on a moderately muddy earth road, and it is to be remembered that a

macadam road is never muddy while an earth road frequently is. Where there are large crops to market, to haul only a thousand pounds or a ton instead of from three to five thousand pounds or as many tons is an enormous penalty imposed by earth roads. Where there is much heavy traffic or where there is frequent rainfall, the hard surfaced road of the best type is a very necessary improvement. A recent estimate places the wastage due to the backward roads of the United States at 250,000 horse power per day. On our earth roads every ton hauled requires a tractive effort of 218 pounds. On concrete roads it demands 28 pounds, a saving of 190 pounds per ton.

Third, the establishment of diagonal roads, radiating from populous centers out thru the country would afford a great saving. Large cities that have been laid out on the gridiron plan are now, at enormous expense, resorting to the creating of radiating streets and it would appear worth while to have radiating lines in the country.

Fourth, improved roads would secure compensatory results to farmers by enabling them to market products when the market prices are best, by the use of time on the farm saved thru hauling larger loads, and by less wear and tear on horse, vehicles, and other equipment employed in hauling and travel. Reflection will prove that each of these savings is of considerable importance. To market at the appropriate time, for example, may mean several cents more for grain than selling later when the roads are passable.

Fifth, improved roads have certain agricultural and marketing gains. They stimulate diversified farming in the proximity of large centers by extending the zone of the production of perishables. There is also a saving of much fruit and vegetables that now perish on account of bad roads. In the nataion at large, the distribution of the delivery of grain thruout the year, made possible by good roads, steadies the market and also reduces the storage charge, which is 12½c a bushel a year in Chicago. The steady marketing of farm produce also would serve to relieve freight congestion on railways which now periodically occurs.

Sixth, the construction of good roads increases the value of adjacent and vicinal farm land. Careful research conducted from year to year thru real estate transfers, public records, railway reports, and school reports in nine counties of six states demonstrated that farm lands adjacent to highways rose in value anywhere from

9 to 114 per cent as the result of the improvement. In six of the counties the increase in value was over 50 per cent. The cost of the haul on these roads per ton-mile fell from 33.5 to 15.7 cents, amounting to \$627,409, while the financial burden to accomplish this gain was only 6.3 cents per mile, a net saving of 11.5 cents.

Seventh, the extension of adequate roads will make a direct connection between the farm and the consumer's tables in cities, resulting in fresher produce for consumers and possibly better prices to farmers and to consumers. The Post Office Department is establishing motor routes in various parts of the nation from Maine to California on which not only mail but goods and produce will be carried. The extension of the parcel post to rural dwellers looks in the same direction, rural routes being established, of course, only where highways are made and kept passable.

Eighth, good roads will improve the rural delivery service and as a consequence bring many benefits to rural inhabitants. In 1912, rural carriers covered a route mileage of 1,010,396 miles, nearly half of all the road mileage in the nation. There were 42,100 routes with an average length of 24 miles. Could such routes be hard surfaced, the employment of motor vehicles would greatly increase the mileage of carriers and increase the size of the load. But the improvement of earth roads will increase the number of routes and the route mileage and extend daily mail and parcel post facilities to a much greater number of rural inhabitants.

Ninth, good roads are the basis of and encourage the establishment of consolidated schools. The future efficiency and happiness of rural populations are largely dependent on their securing an efficient educational system, and it is difficult to see how this can be accomplished save by means of the consolidated school.

Tenth, other social results are secured by means of better roads, such as some kind of church consolidation, stimulus to getting together, and consequently the increase of neighborhood spirit and community undertakings. The pleasure of travel is enhanced and many places are visited which otherwise would have been beyond range; tired housewives receive the benefits of fresh air and enjoy some of the beauties of the larger country, and occasional cross-country trips may be taken. Good roads possess an esthetic value, not only in presenting a better appearance than bad roads but in



stimulating farmers along the way to "clean up" the place and improve the home, thus stirring up latent self-respect.

Eleventh, there is a direct relation between roads and health conditions. In many sections of the nation the ditches constructed in the making of highways serve as excellent channels, tapping and carrying off the water from stagnant pools and serving as outlets for lateral drainage ditches. Thus the building of roads in the South is a great aid in eliminating malaria which inflicts an annual loss in twelve Southern states estimated at \$100,000 annually from interference with work alone. Again it has been discovered that in numerous sections rural peoples are so remote from physicians and the roads are so poor that many are deprived of medical attention except in the most critical cases. Improved roads would go far to repair the defect.

#### IV. IMPROVEMENT OF THE COMMUNICATION SYSTEM

It is obvious that every part of the communicating system that touches rural life could be improved in some respect, but our chief concern is with transportation, for reasons previously set forth. Our failure in the past has been that we have viewed the roads as local affairs and the railways as private interests. The war taught us to think of both as national factors, as conditions in the working efficiency of the life of our nation. As a consequence, in considering the improvement of our highway system we need the larger perspective. It will be necessary to think of the country roads as belonging to the nation, the state, the county, the city, as well as to the farmers who live along their way, because everyone from everywhere may use them. With this larger view all matters of construction, management, and the raising of funds will be regarded as local affairs only so far as localities are concerned and have rights.

1. Classification and coordination. Not all highways are of equal importance when regarded from the traffic viewpoint and this is the logical and natural basis of classification. The French plan of classification already given illustrates classification on the basis of the amount of traffic. The kind of traffic should also be a factor, certain regions giving rise to heavy freighting as compared to the passenger travel elsewhere where more vehicles pass but with less wear and tear. Classification as township, county, and state roads as independent administrative units is illogical and leads to great dif-

difficulties respecting efficient administration. National and state highway officials need to determine and lay out great national highways which stretch out across many states perhaps. It is conceivable that a state might so lay out its roads that interstate travel and traffic would be greatly inconvenienced. Within the several states, state and county highway officials should establish trunk lines which would connect larger centers and with national roads, and be regarded as state highways for revenue and administrative purposes. From these trunk lines would radiate secondary highways to the various centers of secondary importance. Some of these which pierced more than one county might be regarded as state roads. Besides these would be local roads. Probably from 60 to 75 per cent of the roads of the nation are of this class.

2. Administrative system. Attention has been called to the waste and inefficiency which result from the general scheme of local units and administration. It is generally agreed by experts and students of highway matters that broader control and scientific management of all roads are indispensable factors in securing adequate roads. Probably the best plan is to regard the county as the unit for local highway administration with the county road work in charge of an experienced engineer. The county highway engineer works under the general supervision of the state highway department in the sense that there is close cooperation, especially on the large projects and that the plans and specifications for all important work must be approved by the state department. The state engineer in charge of the state highway department and the county engineer should be selected by civil service. The state highway department plans and supervises all state undertakings, cooperates with the federal Bureau of Roads, and exercises a general supervisory function over the state highway system. In turn the county engineer has a large measure of control over all the highways of the county, appointing all overseers, who should be employed as continuously as possible and should report to the county engineer, determining grades, construction of bridges, kind of surfacing, and other important matters. Such a plan provides a guarantee that road funds will be properly used.

3. Adequate funds. The creation of a system of highways to meet national and local needs will require enormous revenues. It is not too much to state that 20 per cent of our 2,500,000 miles of

roads should be surfaced with concrete or brick and as much more with macadam. An average initial cost of perhaps \$10,000 to \$15,000 a mile for this half million miles means a total expenditure of from five to seven and a half billion dollars. Another large percentage should have a gravel or equivalent surface, and all need proper grading and drainage. It is likely conservative to say that to put the highways of the nation in anything like an adequate condition would cost as much as we spent on the Great War.

How to secure this vast revenue is a matter for statesmen to devise. The tendencies at present indicate that more will be raised by local taxation, that the state will secure a much larger revenue for state and county purposes by a heavier auto and motor tax, and that the various states will enjoy the increasing provisions of the federal appropriations for highways, amounting to \$275,000,000 until now. The Federal Aid to Highways has been unquestionably a great stimulus to the improvement of roads. The law requires that states create state highway departments and pass some other enabling laws before they may receive federal funds. These funds are apportioned according to population, area, and mileage of rural delivery and star routes, each factor having a determining weight of one third. So few states possess highway departments that the first appropriation of \$75,000,000 could not be apportioned till 1917 by which time practically all the states had conformed to the provisions. This secures not only large funds to the state but a very great asset in administrative efficiency, a state highway department.

In order to undertake extensive highway improvements, states and counties frequently have to issue bonds. The American Association of Highway Officials recommended that steps be taken to assist in the marketing of such bonds as a necessary help in road improvement.

4. Construction. A re-reading of what has been said relative to the waste arising from lack of grading, from failure to reduce grades, and from unsurfaced highways and relative to the economies gained by the removal of these defects will give the essential points relative to improved construction. We may safely make the generalizations that heavy motor-truck traffic demands a surface that is the equivalent of city pavements, either concrete or vitrified brick; that lines subject to great automobile usage require a macadam or equivalent surface, since these vehicles rapidly reduce gravel to dust which is dissipated by winds; that gravel or sand clay are useful for



important wagon roads and light automobile traffic; and that earth roads are to be the less important neighborhood highways for some time to come. Under the Federal Aid to Highways Act the Bureau of Roads had approved 253 projects up to January 31, 1918, aggregating 2,849.48 miles of each. The cost was \$7,324,721.22 (federal) and \$9,917,143.70 (state and local). Only four out of the 48 states were not represented in the project. The types of construction involved in the projects were in percentage as follows: brick, 2.62; earth, 32.1; gravel, 32.1; cement concrete, 8.9; water-bound macadam, 2.95; bituminous macadam, 5.83; sand clay, 15.6.

The material of a region should be examined very carefully as to its availability for road construction as it is often as good or better than that shipped in from a great distance and its use results in a substantial saving. Competent scientific planning and supervision which is secured by the employment of state and county road engineers will guarantee proper materials, grades, and bridges. During the war some states began a systematic removal of snow from the roads. The standard plan used in Pennsylvania is the employment of motor-truck snow plows, motor trucks pulling standard road scrapers, road scrapers pulled by horses, road drags drawn by horses to break a track for the motor plows in cases of heavy drifts, and hand shovels in instances of excessive drifts. The state highway department receives weather predictions from the Weather Bureau at Pittsburg, warns district engineers whose districts the state highway traverses, who in turn prepare men and equipment to meet the earliest demands of the storm.

Each kind of road surfacing requires its appropriate method of maintenance, but it is noteworthy that for earth surfaces nothing better has been found to keep graded roads free from ruts and properly crowned than the "log drag." The constant use of this instrument after rains while the surface is slightly wet will keep such highways in as good a condition as is possible for them.

5. Encouraging road improvement. The great agencies working for the improvement of roads are the federal plan for aiding highways as a stimulus to state undertakings and leading to standardized and unified administration; the universal use of the automobile, demonstrating to everyone who uses country roads the disadvantage of bad roads and making every autoist a booster for good roads; good road associations and associations for the projection and construction of cross-country and national trails; commercial clubs of cities and kindred organizations interested in developing

the channels of trade about their respective cities; association of highway officials; the influences of the Bureau of Roads of the national government which is constantly building experimental roads, testing materials and methods of construction, sending out experts to lecture and to demonstrate the relative value of the various kinds of surfaces and construction by the use of exhibits; the propaganda carried on by manufacturers of automobiles, motor-trucks, and road building materials such as concrete; engineering courses in educational institutions touching road and street building; other educational courses such as rural sociology and economics which demonstrate the need and advantages of improved highways; and the agitation carried on constantly thru the press. All of these are efficient agencies, and it is needless to try to suggest that more could be done. The nation is responding and state after state is getting in line for road improvement on a larger scale. In 1910 California voted to issue \$18,000,000 worth of bonds for the construction of a system of state turnpikes; New York bonded for \$100,000,000, in 1912, to build approximately 12,000 miles of highways, county and state; a statewide system of 4,800 miles to cost \$60,000,000 was authorized in Illinois at the election of 1918, and in the same year Pennsylvania amended its constitution for authorization and appropriated \$50,000,000 for highway construction. These are examples of what is taking place in the United States relative to highway improvement, and they are only promises of greater things to come. The indications are that the people of this country are arousing themselves to the importance of highways in the economy of the local community and nation and that they are resolved to provide an adequate system.

# Adequate Pay for Teachers \*

P. P. CLAXTON,

*Commissioner of Education in the United States*

Teachers worthy of places in the schools in which American children are prepared for life, for making a living, for the duties and responsibilities of democratic citizenship, and for eternal destiny can never be fully paid in money. Men and women worthy of this highest of all callings will not think first of pay in money or in any other form. For teachers, as for all other workers, Ruskin's saying holds: "If they think first of pay and only second of work, they are servants of him who is the lord of pay, the most unerect fiend that fell. If they think first of the work and its results and only second of their pay, however important that may be, then they are servants of Him who is the Lord of work. Then they belong to the great guild of workers and builders and saviors of the world together with Him for whom to do the will of Him that sent Him and finish His work was both meat and drink."

## WORKERS PAID LARGELY IN KIND

It has ever been and probably must always be that workers of whatever sort received the largest part of their pay in kind, as millers take toll of the grist they grind. Those that work with material things that have easily measured cash values receive their pay chiefly in money or in things whose values are most easily measured in money. Other rewards will be less in proportion and in importance. Those who work largely for other than the material results that can be measured by money must continue to be content to receive a large part of their pay in the consciousness of work well done for a worthy cause, and in participation, by faith at least, in the results, both near and far away in time and in space.

## THE TEACHERS' SPIRITUAL REWARDS

Teachers who do their work well and who, either in fact or by faith, see the world made better as a result; individuals made healthier, wiser, happier; sin and suffering made less; the common wealth made more; social purity and civic righteousness increased; public laws made more just; patriotism broadened and purified; State and Nation made stronger and safer against attack from without and decay from within; and the world lifted on to a higher plane and into

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\*Abridged from an address given before the National Education Association, and later prepared for general use in response to many requests from newspapers and magazines now engaged in the nationwide educational campaign.



a brighter sunshine and a purer atmosphere, are possest of wealth unseen and for most unseeable.

All true teachers will think on these things and many of the best will be attracted to and held in the profession by them. It will be all the worse for the profession and the world when it is not so.

But this should not be made an excuse for putting public or private education on a charity basis, nor for paying teachers the miserably low wages they are now paid. It should not be made an excuse for paying such wages as will not permit school boards and superintendents to fix reasonable minimum standards of qualifications for teachers because young men and women who expect to teach can not afford to incur the expenses necessary to prepare themselves to meet the requirements of such standards. It should not be made an excuse for failing to increase the pay of teachers, as the pay in other professions is increast, in recognition of proved merit and in proportion to increasing ability thru experience, continued study, and constant devotion to duty.

#### IMPROVED SALARIES BENEFIT THE SCHOOLS AND THE NATION

Not for the sake of the teachers primarily, but that the schools may be made fully efficient; that children may be well taught; that the material wealth of State and Nation may be increast so that we may have the means of paying our debts, building our highways, caring for our unfortunates, and meeting other public expenses and at the same time have enough for all the people to live in comfort; that our democracy may be preserved, purified, and made more effective; that scientific discovery, useful invention, and artistic expression may be promoted; that we may act well our part in the commonwealth of the world, we must pay such salaries as will bring into the schools as teachers men and women of the best native ability, men and women strong and well organized physically, mentally, and spiritually; men and women of the finest culture and the most thoro and comprehensive education, academic and professional, and so adjust their salaries as to enable them to hold all those who show themselves most capable and best fitted for the work. In this most important of all our enterprises we can not afford to pay less.

#### MANY ABLE MEN HAVE TAUGHT

Our traditional policy of paying to young and inexperienced men and women with little or no question as to their professional prepara-

tion salaries almost as large as we pay to those who have had many years of successful experience had at least one merit. It brought into the schools large numbers of young men and women of unusual native ability and of strong character and sometimes such men and women having also good scholarship and fine culture, willing and eager to do the best they could while saving from their comparatively good wages money to start them in business or home making, or to enable them to prepare themselves for those professions for which adequate preparation is required and demanded. Many of the ablest men and women in all walks of life have been school teachers. A good-sized ex-teachers' association could be formed of members of any recent Congress of the United States. We have just nominated two ex-teachers as candidates for the Presidency. Unfortunately, however, most of these have remained as teachers in the schools only till they had begun to gain some little comprehension of their task and some little skill in executing it. But despite their lack of preparation and experience it was good for boys and girls to come in contact with them. From this contact many gained inspiration and purpose.

#### OTHER OCCUPATIONS PAY BETTER

The time has now come when men and women of unusual ability and strength of character can make more money in any of hundreds of occupations than they can in teaching. A few of them will teach while waiting to find themselves, or to make money for a start in business, or for paying for preparation for other work. They will accept employment which is at the same time more attractive and more remunerative. From now on schools will be taught (1) by unprepared and inexperienced young men and women of mediocre ability and less, while waiting for the maturity which is required for employment in the minor and more common occupations; (2) by the left overs of such men and women who have failed to find more attractive and remunerative employment elsewhere, but have not wholly failed as teachers; or (3) by men and women of better native ability, stronger character, more thoro education, and the professional preparation which will enable them to succeed to such an extent that they may be induced by the payment of adequate wages to continue to serve their country in a high and valuable way as teachers.

#### THE REAL CRISIS IN EDUCATION

We have come to the parting of the ways. Which shall we accept? Makeshift teachers of the first two classes we may continue

to get in sufficient numbers by paying salaries relatively as large as those paid in 1914. To have the same relative value and purchasing power as salaries paid in 1913-14, the present salaries and salaries for some years to come must be approximately twice as large as they were then.

### WE MUST HAVE STRONG TEACHERS

For teachers of the third class—and we should be satisfied with no other—we must pay salaries larger relatively than we have paid at any time in the past, and must adopt a policy which will give such recognition to teachers of unusual ability as will hold them in the service of the schools against the temptation of better pay elsewhere. Temporary increase in pay of teachers will not be sufficient. There must be such guaranty of good wages in the years to come as will induce young men and women of such native ability and character as good teachers can be made of to accept teaching as a profession and take the time and spend the money necessary to prepare themselves for it. The demand for professional preparation and continued service, coupled with inadequate pay, can only result in supplying the schools with teachers of small caliber, unfit to become the inspirers and guides and educators of those who are to make up the citizenry of the great democratic Republic, solve the problems, and do the work of the new era. Such teachers are not fit seed corn for the new harvest to which we should and do look forward.

For such teachers as we would have in our schools what may be considered adequate pay? The answer is very easy and short. Such pay as may be necessary to get and keep them. In a conference of leaders of national civic and patriotic societies which met recently at my request in Washington it was agreed that to be considered adequate the wages of teachers should be as much as men and women of equal native ability, education, special preparation, and experience receive for other work requiring as much time, energy, and devotion, and involving approximately as much responsibility.

Just how much this will mean in dollars and cents in any community I do not know. To determine the amount in any State, city, or country district will require a careful and comprehensive study. But it can quite easily be arrived at approximately, at least, for the country at large.

### AVERAGE SALARY SHOULD BE \$2,000

The average wealth production of the adult worker of the United States is not far from \$1,250 a year—probably somewhat



more. The average for men and women of ability, preparation, and industry of such teachers as we are talking about can not be less than \$2,000; it is probably nearer three or four or five thousand dollars. But in view of the fact that teaching is by its very nature an altruistic calling, and also because it may reasonably be supposed that the purchasing power of the dollar will increase considerably within the next few years and the cost of living as measured in dollars relatively decrease, let us agree on \$2,000 as an average salary for teachers in the elementary and secondary schools of the United States. This is three times as much as the average for the year of 1917-18 and more than 150 per cent above the average for the year 1919-20.

If the pay to beginners is so fixt that the average for all teachers in the first year in urban and rural elementary schools and high schools is \$1,200, this will allow other salaries of \$2,500, \$3,000, \$3,500, and \$4,000. Salaries of \$5,000 or more may be held out as rare prizes for those who have gained experience and have proven their worth and who are willing and able to pay the price of such great and fine service as is recognized by unusual rewards in other professions.

#### THE MONEY CAN BE RAISED

Can we pay such salaries? With such proper and useful economies, as may be easily brought about, including consolidation of small rural schools and the adoption of a well-arranged work-study-play plan in the city schools, the total number of teachers in the public elementary and secondary schools of the United States need not exceed 750,000 within the next 5 or 10 years. At an average wage of \$2,000, it will take a billion and a half dollars to pay 750,000 teachers. Increase this by 50 per cent—a liberal amount—to pay for administration, supervision, buildings, equipment, and supplies, and we have a total of two and a quarter billions—a quarter of a billion short of Spaulding's two and a half billions and only \$140,000,000 more than the amount the Department of Labor reports that we paid last year for tobacco in its various forms. Our part in the World War, in which we fought for freedom and democracy, cost us not less than fifty billions of dollars all told. At 5 per cent the annual interest on this amount is two and a half billion dollars. Without education there can be neither freedom nor democracy. Unless we educate all the people in such a way as to enable them to possess these in fullest measure we shall have spent our money for naught and the men who sleep in France and Belgium shall have died in vain.

Can we pay the debt and pay in like proportion for education? The answer is we can not well do the one without the other. Our power to produce and to pay will and must depend on the health, knowledge, skill, purpose, and will of the people; that is, on their education.

How much can we afford to pay for education? Since education is a factor which can not be eliminated from the wealth-producing power of the people and since all wealth depends on education, we can as a people afford to increase our appropriations for education until the increase in cost becomes greater than the increase in the productive power which comes thru education. No people have ever yet found the limit.

Will the people pay? The wealth is theirs, the children are theirs, the schools are their agents, owned and supported by them for the education of their children and for the attainment of all that this means and can be made to mean for their own happiness, for the individual welfare of their children, for the production of material wealth, for the individual and common good, for the public welfare, for civic righteousness and social purity, for strength and safety of State and Nation, and for all that patriotism means and all that supports life and makes life worth living. I have faith to believe that when the people are made to understand this they will respond. They have never failed. They will not fail now.

# Book Reviews

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PRIMITIVE SOCIETY: ROBERT H. LOWIE. Boni and Liveright, New York, 1920. VIII+463 Pages.

This volume is no respecter of theories. It is one of those foundational contributions which appear now and then that upset widely-accepted and long-standing dogmas in their respective provinces. The dogma in the field of anthropology that is more often confronted in the book than any other, and refuted, is the theory of the American Morgan and others. Morgan and his followers and some European savants formulated a unilinear theory of social evolution based on kinship stages thru which primitive men everywhere passed in the same order. Lowie shows by ethnographic studies that there is no such fixt order. Societies of the same culture levels present widely divergent organizations. From promiscuity to communism in sex, then to the matrilineal clan, and thence to the patrilineal is an order of evolution that would simplify things if true, but unfortunately the facts upset it. Nor does the age theory of Schurtz fare any better. The uniform priority of age-classes when compared with clubs or secret societies lacks general validity. According to Lowie, it is impossible to formulate universal laws of social evolution, for there are no regular set stages thru which the various peoples pass.

Freud's treatment and explanation of parent-in-law taboos on the basis of psycho-analytical motivation is wreckt upon the shoals of ethnographic fact. In his theory of 'ambivalence' to explain mother-in-law avoidance, he blends affection and animosity; also he makes the explanation general. But the theory errs in painting primitive sex-motivation in terms of the modern family and in the fact that primitive psychology is socially conditioned. Each group has its psychology because the customs are what they are; and the customs as to mother-in-law avoidance vary from group to group.

The theory of economic determinism which is so widely held by socialists and advocated by some economists proves to be one-sided in light of primitive social facts. Lowie tests it with respect to the position of woman and finds that it is at best only one of a series of determinants whose effects may be minimized and even obliterated by other causes. And if it fails as an exclusive determiner here, it undoubtedly will in respect to other matters. The generally accepted doctrine that primitive ownership of property, especially that of land, is communistic is shown to be erroneous. Tribes or groups among



American aborigines are found to have had each a definite territory and within that individual families or kinship groups hold certain tracts exclusively as their domains. The teaching that primitive people are without political life in the sense of some sort of authoritative government is negated by data drawn from culture groups from all parts of the world. These are some of the chief dogmas which are overthrown by this piece of research.

The author questions the reality of totemic phenomena at all, certainly a stunner to cultural theorists. He finds no criterion for measuring progress as there is for technological matters; consequently there are no principles or laws of progress and, as a corollary, there is no demonstrable progress. The appearance of a level of culture within any group is explicable in either of two ways; independent origination, giving rise to the doctrine of parallelism, and transfusion from group to group. Of the two methods, both of which obtain, the latter is far the more prevalent.

The author loses his usual scientific acumen regarding the nature of incest. In fact his position here is not consistent; for he teaches that it is instinctive (page 15, and elsewhere) and yet piles up sufficient evidence to show that it cannot be (page 29). Modern social phenomena amply demonstrate that it is the product of custom rather than of heredity.

This work covers ethnographic and theoretical treatment, marriage, polygamy, the family, kinship usages, the sib, position of woman, property, association, rank, government, and justice. The author's general position is summed up in the last chapter entitled, "Conclusion." The book is supplied with an extensive bibliography and full subject index. Both in form and content it will serve admirably for a college text. It is not too much to say that Mr. Lowie has placed the social sciences under a great debt of gratitude for this thoro and scientific piece of work.

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THE JUNIOR HIGH SCHOOL: LEONARD V. KOOS, Professor of Secondary Education, University of Minnesota. With an introduction by President Henry Suzzallo of the University of Washington. Seven figures and three tables. Harcourt, Brace, and Howe, New York City. 1920. XVI+179 Pages.

The Junior High School! "A name to conjure with." We are in the midst of a very interesting situation in the field of education.

An institution is developing, rapidly becoming very popular, at least by name, and multiplying rapidly, tho there are scarcely two alike and tho there is as yet no recognized standard. "We are feeling our way," says some one. But no. Our movements are too rapid, too careless, to be called *feeling* our way; we are rushing on pell-mell like a flock of sheep each one bent on getting thru the gate first. It is well that some one has stopt in the mad rush and given reflective thought to this new institution that has so taken us by storm.

Mr. Koos is Professor of Secondary Education in the University of Minnesota. Out of his experiences in that field, with a background of thoro equipment for meeting and solving its problems, with a sympathy for young life based on knowledge, and with the enthusiasm of youth finely tempered and brought to heel by study and observation and experience, he has made a study of the movement and has here given us, in this little book, the results of his observation and investigation. In his attempt to evaluate, he tells us whence the institution has sprung, discusses its peculiar functions, makes known to us its present-day practises, and marks out a sane method of procedure in its use.

The book is not, therefore, in any sense, a theoretical treatise. It is (shall I say *merely* or *better*?) a thorogoin answer to an honest enquiry as to the present situation the country over. And this enquiry has been made of those who, believing in the situation as an agency for solving some of the problems confronting them, are trying it out under the varied circumstances found in the different parts of the country and in the various forms that have seemed most satisfactory or most feasible.

Professor Koos has read widely on the junior high school movement and has here summarized his readings for the assistance of others. And he has done it so well and so thoroly that the average school man, facing the problems of secondary education but without the time or the library facilities for such investigation, can, in a few hours' reading, become relatively intelligent as to the present situation. But the book is not a *mere* summary—a colorless statement of fact; in it, from page to page and from chapter to chapter, we see Professor Koos. His questions, his comments, and his interpretations are suggestive and helpful. But he is nowhere dogmatic. While we know all along that he believes in the institution of which he writes, he is nowhere trying "to prove a point". Again and again he makes it clear that as yet no one can speak with finality. The institution in its various phases and forms of activity is still in

the experimental stage and must be allowed to remain there for a long time to come while we "settle down to the laborious task of working out, detail by detail, the special purposes of the junior high school and the means by which these purposes are to be accomplished." (Page 176). For "it is the responsibility of all who are in any way connected with the junior high school to assist experientially and experimentally in extending our information concerning its distinctive aims and the special agencies for their attainment." (Page 176).

Incidentally, it might be said, there is found here, in the articles and books to which the writer refers, a good bibliography of the junior high school movement, which will be welcomed by many readers. All in all, it is the most thoroughgoing, most satisfactory presentation of the movement at hand. No school man can afford to be without it, for the junior high school has come to stay and, whether he will or not, the school man must face and—use it. With the assistance of this little book he can do so intelligently and without loss of time in making useless experiments. The publishers, too, have done a good piece of work. The type is large and clear, the paper good, and the binding attractive and substantial. The reviewer very much hopes that it will be widely advertised and thus brought to the attention of teachers generally.

A. J. LADD

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THE NONPARTISAN LEAGUE: HERBERT E. GASTON. Harcourt, Brace, and Howe, New York City, 1920. VIII+325 Pages.

THE STORY OF THE NONPARTISAN LEAGUE: CHARLES EDWARD RUSSELL. Illustrated. Harper and Brothers, New York City and London, 1920. 333 Pages.

Like all political movements that have occurred among the farmers of the United States, the Nonpartisan League has received a great deal of publicity at the hands of both friends and enemies. During the first five years of its life the notice the League received was chiefly in the shape of news items in the daily and weekly press, articles in periodicals, and pamphlets espousing and expounding its program or attacking it. But in recent days, more comprehensive surveys are appearing, and the two volumes under review are instances of these.

There are many points of likeness in these volumes. Both of the writers have been connected with the Nonpartisan League in



some capacity at some point in its existence. Mr. Russell was in North Dakota and acted in an advisory capacity to the League during the period of its initial organization and was the first editor of its first organ the *Nonpartisan Leader*. He was a well known publicist in the economic field, and during the war served as a member of President Wilson's commission to Russia, the chairman of which was Elihu Root. Radical in outlook, he would be apt to sympathize with a movement such as the League represents. Mr. Gaston has been associated with the publicity work of the League during several years, serving as editor of its papers in Fargo and St. Paul, and has consequently been intimately cognizant of its career and history.

Both volumes traverse about the same territory and take pretty much the same attitude relative to the important points in the League's development, altho they differ widely in points of emphasis. Gaston's book recites the detailed history of the movement, chapter by chapter thruout its twenty-four chapters. It gives a short initial account of North Dakota and the political antecedents out of which the League arose. Russell's work, in its nineteen chapters, is very largely devoted to an exposition of the economic and political system touching the processes of agriculture. The author is concerned with demonstrating at length how the loan and mortgage systems the farmer uses and how the various agencies which weigh, grade, dock, transport, and mix his grain, namely the elevators and grain dealers, have workt injuriously against the producers of farm products. In the course of the treatment much documentary evidence is furnisht to prove his contentions, such as testimony at hearings in Congress, reports of Federal and State commissions, and the North Dakota Bankers' Association. These abuses are recited, but more briefly in Gaston's volume.

The two authors alike have something to say about Mr. Townley, the president of the League since the time of its inception; also of the Scandinavian Bank affair. But what they say would not be acceptable to the opponents of the Nonpartisan League. They also seek to meet the charges of disloyalty made against the League during the War, outline the program of that organization, and devote some attention to its methods of publicity, legislation, and control. Russell gives an exceedingly full account of the League's program and of its legislative accomplishments in North Dakota.

In his volume, the latter writer more than once emphasizes the thought that the central feature of the Nonpartisan League lies

in its plan to control the primary, and implies that the conception of the importance of such control constitutes a considerable part of Mr. Townley's contribution to political philosophy. That this is a crucial point he further indicates by citing the efforts the opposition has made to annul or fundamentally change the primary laws in a large number of states where the League is seeking to operate.

Both writers agree in holding that the Nonpartisan League arose because of conditions which are nation-wide and that it was a mere incident that the initial movement occurred in North Dakota. They alike recognize that mistakes have been made thus far in the direction of the League's efforts, especially, Russell thinks, in the selection of officials. Neither writer professes to know whether or not the movement on the part of farmers is permanent but both believe it is a righteous movement, even if it fails and dissolves. Mr. Gaston looks upon it as one of the necessary experiments by which progress comes and, therefore, as contributive. Mr. Russell's last sentence is: "The Nonpartisan League may go to pieces next year or it may become a permanent feature in our political system; I do not know. But I do most earnestly believe that the mark it has set will never be erased."

A careful reading of these two books gives the impression that the writers have tried to give an accurate and fair account of the Nonpartisan League. The unbiased student will give them credit for having attained this as far as it is possible for sympathizers with the movement to do. That they are biased in a good many places and judgments cannot be denied. That their accounts are egregiously untrue, only the most violent partisans could acclaim. Credit must be given them for writing interesting and valuable histories of an interesting and spectacular movement.

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THE WINSTON SIMPLIFIED DICTIONARY; Edited by WILLIAM DODGE LEWIS, Deputy Superintendent of Public Instruction State of Pennsylvania, and EDGAR A. SINGER, Professor of Philosophy, University of Pennsylvania. Eight full-page color plates and 800 illustrations in the text. The John C. Winston Company, Philadelphia and Chicago, 1919. XXII+802 pages. Price \$1.36 postpaid.

This is the latest one of a series of small dictionaries published by the Winston Company during the past few years under various

names. The earlier volumes were based on Webster, but strict originality is claimed for this work, and, so far as any small dictionary can be an entirely new work, the assertion seems justified. The vocabulary has been exceedingly well chosen, and is up-to-date. Many of the terms brought into use by the great war, and a number of the newer American words not found in the unabridged dictionaries, are incorporated into the main list for the first time. We find such words as *vitamin*, *movies*, *air-plane* (likely to supersede *aeroplane*), *car* (automobile). Modern slang words are scarce as might be expected in a school dictionary. One looks in vain for *drive* (in the sense of a money-raising campaign), or of that ubiquitous Y. M. C. A. term *pep*. We do find such obsolete slang words, however, as *dude*, *shilly-shally*, and *pernickkety*. There are many terms included such as *yataghan*, *dahabiyeh*, *turbek*, and *ratlins* that are rarely used in English outside of certain works of literature. One wonders why *gladiolus* and *zinnia* are omitted when *hydrangea* and *nard* are included. These are minor faults, however, and detract little from the worth of the book.

Some very useful special lists are appended: Mythological and classical names, Foreign words and phrases, Names and places, Business terms (excellent feature), Prefixes and suffixes, and Abbreviations. On the whole, the illustrations are helpful, those of perfectly obvious objects being omitted. Certain abstract words are illustrated by appropriate phrases. Synonyms and antonyms are freely noted. The definitions are very concise and clear. The device of printing each entry in bold-faced type enables one to find a word with minimum delay.

The compilers are to be congratulated upon their success in producing a reference book so popular and useful. It is admirably adapted for school use. We commend it to the individual who needs a first-class inexpensive desk dictionary.

A. D. KEATOR

Librarian,  
University of North Dakota

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DEMOCRACY AND IDEALS: JOHN ERSKINE, Professor of English, Columbia University. George H. Doran Company, New York City, 1920. One hundred and fifty-two pages.

This book is made up of six articles and addresses given by Professor Erskine during the last two or three years. While the title of the book applies specifically to only the first of the six, one



definite thought runs thru all. Together, they form a study of American character—its elements of strength, of weakness, and its needs. While each chapter is a completed unit in itself and can be read separately with profit, each one, nevertheless, gives side-lights that bear helpfully on all the others.

Dr. Erskine's position, as given above, is sufficient guarantee of the quality of the work presented. Besides that, he was Chairman of the Army Education Commission with the American forces in France in 1918-1918 and Educational Director of the American Expeditionary Force University at Beaune in 1919. As an outcome of his service there, he has been highly honored in many ways: was made Chevalier de la Legion d' Honneur; received the Distinguished Service Medal; and made honorary citizen in Beaune, all in 1919. The next year he was made a member of the National Institute of Arts and Letters, also of the Council of American Learned Societies. In these various services and thru these various associations he has had, as supplementary to his work in a great American university, most excellent opportunities for studying people—American, French, and English, and each in the light of the others.

Of the six addresses, four were written while thus engaged in France: "American Character," given to the English at Bedford College, London; "French Ideals and American," given, at various times, to Americans—American troops and other American audiences in France; "Society as a University," given at the opening of the University at Beaune; and "Universal Training for National Service," written for publication. Of the two others, the first, "Democracy and Ideals," which gives title to the book, was originally written in 1917 but recently rewritten, in the light of war experiences, for publication here. The last, "University Leadership," was given in September, 1919, at the opening of Columbia University. The entire six, as here given, are clearly the product of the war. As one reads he involuntarily sees the Great War in the background. He does not, of course, even in mental picture, hear the thunder of the guns nor see the troops in deadly combat, but the War is there, nevertheless—the War in its social aspect.

It is thus that Mr. Erskine writes of "Democracy and Ideals". Surely a man of his equipment, with his academic experiences followed by his unusual civic and military-educational services, among such people as the Americans and the French, during such crises in their history—surely such a man should be able to write, to the reader's profit, on "Democracy and Ideals." And we are not dis-

appointed. He has seen in clear perspective and written simply and to the point. In "Democracy and Ideals" he tells us what an ideal is, helps us to see democracy as few of us have seen it before, and makes clear the relation between the two. And so in all the others. His analyses are thoro and painstaking, but not labored, and his statements forceful and clear. The various topics are address to thoughtful people—"None others need apply." But no thoughtful person will fail to profit by the reading.

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THE PRINCIPLES OF SOCIOLOGY: EDWARD ALSWORTH ROSS, Professor of Sociology, University of Wisconsin. Illustrated with diagrams. The Century Company, New York City, 1920. XVIII+708 Pages.

It is next to impossible to review a work of this size, containing something like 350,000 words, in a brief space. Moreover, the nature of the discussion makes a real review within a small compass almost out of the question. The volume is worthy of an extended review for it not only is the major opus of a celebrated sociologist, but has exceptionally great intrinsic value. Only some of the larger features of the volume can be noted.

The divisions of the volume are: I, Social population, to which three chapters are given; II, Social Forces in four chapters; III, Social Processes in 37 chapters; IV, Social Products in eight chapters; and V, Sociological Principles in four chapters.

In Part I, the composition of the population relative to age, sex, nativity, and marital condition in its significance for society is treated; the city and country are compared in those respects and the bearing of their peculiarities shown; and the growth of population as it affects society now and in future receives attention. Malthus' so-called law of population is upheld, and the social control of fecundity and the restriction of immigration are advocated.

Ross finds four sets of social forces; instincts are the original ones, the various great interests such as the economic, religious, and intellectual are derivatives; racial differences of mind, and geographic conditions are the others. But the only immediate social forces are mental; geographic conditions, for example, being effective only as they are determinative of the decisions men make—that is, men make decisions in view of such conditions. Just how

racial differences are thus mediated to the mind so as to become a social force is not so clearly indicated. It is stated that because of their natural bent, races react to ideas in differing ways, thus producing diverging types of social tendencies and institutions. But this is a quite different situation than in the case of geographical conditions. For there the mind apprehends conditions and decides so and so; here, two races, say, because of what they are, respond to the same set of ideas in differing ways. This would appear to place races in the class with instincts as an original social force.

So far as the reviewer knows, Ross has traced the social processes more minutely than has any other writer. The author is not at pains to inform the reader what a social process is and how it differs from other phases of society treated. Also we are left to infer that the multitudes of subjects treated in the course of the 37 chapters of the third part are intended to represent social processes. Evidently he means by a social process any movement or change in society which has important results for society. The primary genesis of society is traced in two chapters; opposition requires seven; processes involved in the relation of the individual to the group consumes six; those of regress and progress require four; and each of the other fifteen receives a chapter's notice. The field appears to have been well tilled.

Uniformities, standards, groups, and institutions in the instance of the family, industry, the public school, the recreation center, and the state represent the social products. Why the church, or religion, is not treated as an institution does not appear; unless the explanation is to be found in an incidental remark, dropt in discussing the family, that religion has become a private matter among many nations. Yet has it altogether, and is it not a persistent force having a well-defined organization? But the author does not explain what he considers an institution, so we do not have his criterion for judging his exclusions.

Ross discovers and treats four sociological principles: anticipation, simulation, individualization, and balance. He does not explain what he means by a principle. Just why individualization deserves the rank of principle while socialization is placed in the list of social processes is not obvious without some explanation. In fact, it is not demonstrated that at least some of the "principles" propounded are not quite as truly processes as any of the elements so treated.



A more extended review would doubtless reveal other criticisms of the treatise than those briefly suggested. The criticisms would likely be pointed at the logic of the classification which represents the main divisions and at certain of the topics discust under some of them; that is, would refer to the methodology of the work. The fairly well-markt paths of sociologists in formulating their science has not been followed. It is not certain that the plan proposed is an improvement; many will regard it otherwise. It is expected that when such a departure is taken ample reasons will be offered therefor.

This treatise is like no other "system" of sociology. It is not a formal logical system as are those of some other writers. But nevertheless it is one of great value and merit. It is a vast storehouse of valuable information and generalizations relating to society. The author is generally at the high level of his trenchant style. His grasp of facts is marvelous and his insight is at times almost preternaturally uncanny. His position relative to the many important problems and tendencies in society is exceptionally sound and wholesome, and his vital sagacity constantly forces the admiration of the mature mind. The student who reads the work intelligently will receive a liberal education, and the teacher who uses it with his classes will find inexhaustible topics for discussion and a constant stimulus to renewed effort.

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# University Notes

**The Enrollment** The enrollment in the various colleges and schools of the University is very satisfactory. It shows not a phenomenal growth but a healthy increase. In the University proper the increase is a little more than eight per cent over that of last year at this time. This is slightly offset by a decrease in the enrollment of the University High School, but even taking this decrease into consideration, the total attendance represents a comfortable increase. The attendance is as great as we should have with the present facilities—instructional force and general equipment. Even now many of the class rooms are crowded to the doors and many of the instructors are carrying too heavy programs. Such a situation is unsatisfactory from every point of view. It can not but result in a lowering of standards and in relatively poor work in many instances. The local management is not at fault. It is due simply to a lack of funds. But it is poor economy. If the University should be maintained at all, it should be maintained at a high state of efficiency.

At this writing the attendance is as follows:

	Men	Women	Total
Graduate Department .....	5	0	5
College of Arts .....	296	194	490
School of Education.....	21	251	272
Engineering .....	146	2	148
Law .....	26	1	27
Medicine .....	36	1	37
	<hr/> 530	<hr/> 449	<hr/> 979
University High School.....	48	46	94
	<hr/> 578	<hr/> 495	<hr/> 1073

The enrollment in the University by classes is as follows:

Graduates .....	5	0	5
Seniors .....	73	47	120
Juniors .....	85	64	149
Sophomores .....	150	136	286
First Year Laws .....	11	0	11
Freshmen .....	174	171	345
Specials .....	32	31	63
	<hr/> 530	<hr/> 449	<hr/> 979

**The Service List** The January, 1920, number of the Quarterly Journal was practically given over to the Service List of the University. Efforts had been made to secure accurate information in regard to the war activities of every man and woman, student and faculty, who had ever been connected with the University. As a result, 1168 names, with service details, were listed and 102 others (alumnae) recognized at having assisted indirectly, making the grand total 1270.

In order to secure the number to which the University was entitled for Service Flag designation, 230, alumni and former students, were deducted as not having served in a strictly military capacity, thus placing the service list, technically, at 1040. Tho this is a most creditable showing for so young an institution in so new a state, it has been known, all along, that it underestimated the contribution, even in numbers. This was due to the extreme difficulty in securing information. Many have been omitted. It was early thought that the search could be completed by this time and a supplementary list given in this number of the Quarterly Journal. But, owing to the great amount of moving about during the summer months of people generally, it has been impossible to find them, and less has been accomplished than had been hoped. It has therefore been decided to postpone issue of the supplementary list until January, 1921. In that number we shall try to present statements of the completed list with the results of some very interesting analyses.

Again the readers of the Quarterly Journal are asked to cooperate in this effort to complete our records. They should know, too, and bring it to the attention of others, that we still have some copies of the October number, giving a history of North Dakota's part in the Great War, and of the January number with the detailed Service List. While they last they can be procured for the nominal charge of 30c each, postpaid, by addressing the publication.

**The Summer Session** The University's Summer Session of 1920 was the largest and most successful yet held. It began on Monday, June 21, directly following Commencement, and continued for six weeks, closing July 30. The attendance numbered 246 as compared with 215 one year ago. Of the 246, 166 were men and 80 women; 165 were enrolled in the School of Education, 59 in the College of Arts, 5 in the College of Engineering, 3 in the School of Medicine, and 14 in the Graduate Department. Nearly all the departments of the University were open, and in most cases the head of the department was on the faculty. All of the instruction was of



college grade. Professor Joseph Kennedy, Dean of the School of Education, was Director.

Of particular interest was the work in physical education, given by Professor Paul J. Davis for the men and by Professor Nell Martindale for the women. Professor Davis gave a course in the coaching of athletics which was taken by a dozen or more of the high school principals and superintendents of the state. Toward the close of the session Miss Martindale put on, with her classes, an excellent public program featuring her work. The social committee, with Professor Franz Rickaby as chairman, did excellent work in the way of bringing the students into cordial relations and acquaintance. As a consequence, there was an excellent spirit during the session and at its close all felt thoroly at home. There were also gatherings of a literary and musical character, and the closing meeting contained a graduation, or commencement, feature, sixteen students having completed their work. At a special meeting of the Council these were recommended to the Board of Administration for the appropriate degrees and certificates. More and more the Summer Session is getting to be recognized as a fixture and as a very important period in the University year.

**Faculty Changes** In these days of unrest and of stress and strife and consequent change in all the relations of man, it is not surprising that even the relatively cloistered retreats of higher institutions of learning should be invaded. Indeed, it is but natural that they should be affected for the old cloistral character is, at best, but relative, as suggested. Has it not, in fact, pretty nearly become a thing of the past? Are we not now, owing both to economic and social conditions, on the broad highway of the world meeting and being met, jostling and being jostled by people from all other walks of life? This situation has brought the university instructor face to face with conditions of which he thought but little only a few years ago, among them attractive openings and opportunities in other fields, and in many cases his own fitness for the same. The unrest thus created has been intensified by the striking contrasts revealed both in the way of material returns for service and in appreciation rendered by the public. Small wonder, then, that many have left a profession so inadequately remunerated as that of the teacher, and one so poorly appreciated. And within the profession—some institutions have more money than others and can bid higher in the great public auction (too bad that it can be true—more's the pity that it is true)

for competent men. And so the shifting about like the waters of the troubled sea! Tho regrettable, it is likely to continue for some time—until, in some way, the spirit of unrest is exorcised, which will not be until a greater measure of justice, both economic and social, is secured for the great masses of the people, including teachers. And this will never be save thru the unappreciated efforts of these same teachers in the slow upbuilding of a higher degree of intelligence of all our people.

As seen below, the changes in the faculty of the University of North Dakota are more than usual. They are too many for the best good of the institution. But they are due to the causes suggested above—a great social unrest and a woeful lack of funds. But in this we are not alone. Many other institutions, similar to ours, are suffering in a similar manner. While this fact does not help us immediately in meeting our local situation, we do know from it that the causes are not entirely local. Below are given in detail the changes in our own institution:

#### PROMOTIONS

##### *(During the year)*

- Mr. Paul J. Davis, Assistant Professor of Physical Education;  
To be Associate Professor of Physical Education.
- Mr. Louis C. Harrington, Assistant Professor of Mining and Metallurgy;  
To be Associate Professor of Mining and Metallurgy.
- Mr. Lauriz Vold, Assistant Professor of Law;  
To be Associate Professor of Law.

##### *(At Commencement Time)*

- Dr. John W. Todd, Associate Professor of Psychology;  
To be Professor of Psychology.
- Dr. J. H. Bond, Assistant Professor of Economics;  
To be Associate Professor of Economics.
- Mr. W. H. Bair, Instructor in Physics;  
To be Assistant Professor of Physics.
- Mr. John W. Ballard, Instructor in Business Administration;  
To be Assistant Professor of Business Administration.
- Mr. Richard F. Castner, Instructor in Shops;  
To be Assistant Professor.
- Mr. Leonard P. Dove, Instructor in Geology;  
To be Assistant Professor of Geology.

Mr. Franz L. Rickaby, Instructor in English;

To be Assistant Professor of English.

Dr. Frederick D. Smith, Instructor in Classical Languages;

To be Assistant Professor of Classical Languages.

Mr. E. Harold Wilcox, Instructor in Music, in charge of the Department of Music;

To be Assistant Professor of Music and Head of the Department of Music.

(Later)

Professor Hugh E. Willis, Professor of Law and Acting Dean of the School of Law for two years;

To be Dean of the School of Law and Professor of Law.

#### RESIGNATIONS

Mrs. Ruth Hill Arnold, Instructor in Home Economics, resigned to accept a position in the Urbana University Schools, Urbana, Ohio.

Mr. W. H. Bair, Instructor in Physics, recently promoted to an assistant professorship, resigned to accept a position with the Westinghouse Electric & Manufacturing Co., at Pittsburgh, Pa.

Mr. John W. Ballard, Instructor in Business Administration, recently promoted to an assistant professorship, resigned to accept a position in Queen's University at Kingston, Ontario.

Miss Jessis Budge, Reference Librarian, resigned to accept a position as Librarian in the Grand Forks Public Library.

Mr. Richard F. Castner, Instructor in Shops, recently promoted to an assistant professorship, resigned to accept a commercial position in Grand Forks.

Mr. W. C. Dalzell, Assistant Professor of Law, resigned to accept a position in the School of Law, University of Oregon.

Miss E. Russell Edwards, Cataloger in the University Library, resigned last April to accept a similar position in the Library of the Agricultural College at Fargo, North Dakota.

Mr. Bert O. Ihland, Superintendent of Buildings and Grounds, resigned to enter a business opening in Seattle, Washington.

Mr. Isador Mendelsohn, Chemist and Sanitary Engineer, resigned to accept a position with the United States Public Health Service at Washington, D. C.

Miss Beatrice Olson, Secretary of the Lecture Bureau and Correspondence Study Bureau in the Extension Division, has resigned to accept an instructorship in the Department of English, in



which department she was a part-time instructor during the second semester of last year.

- Mr. Robert L. Rhoads, Acting Head of the Department of Mechanical Engineering.
- Mr. Ernest F. Peterson, Instructor in Electrical and Mechanical Engineering, resigned to accept a position in Colorado.
- Mr. Vernon E. Sayre, Assistant Professor of Manual Arts, resigned to accept a teaching position in Fullerton, California. Professor Sayre began his services in the University of North Dakota in 1914.
- Dr. Frederick D. Smith, Instructor in Classical Languages, resigned to accept an attractive college position in Houston, Texas.
- Dr. B. J. Spence, Professor of Physics, resigned to accept a position in the Department of Physics of Northwestern University at Evanston, Illinois. Dr. Spence came to the University of North Dakota in 1909. He has been one of our strongest men. His leaving is greatly regretted.
- Mr. Merle Storr, Instructor in Science, University High School, resigned to accept a fellowship in Science in Michigan University, working for the degree of Master of Arts.
- Mr. J. W. Taylor, Assistant Professor of European History, 1919-1920, is continuing his post graduate work at the University of Chicago.
- Dr. J. W. Todd, Associate Professor of Psychology, recently promoted to a full professorship, has resigned to accept a professorship of Psychology in the University of Southern California.
- Mr. H. H. Tuttle, Registrar, resigned in April to accept a commercial position in Grand Forks.
- Miss Margaret Van Hoesen, Assistant Professor of Home Economics.

#### NEW APPOINTMENTS

- Miss Susan G. Akers has been appointed Cataloger in the University Library. Miss Akers is a graduate of the University of Kentucky, and has taken the Library School Course at the University of Wisconsin. She comes to the University from Wellesley College where she was Librarian of the Department of Hygiene.
- Mr. D. C. Choate has been appointed Instructor in Mechanical and Electrical Engineering. Mr. Choate received his B. S. degree in M. E. from the University of Kentucky, and has had practical experience in various kinds of engineering work. He comes to the University from Hammond, Ohio, where he was in the employ of the Corliss Engine Company.

Miss Zella E. Colvin has been appointed Instructor in Mathematics in the University High School. Miss Colvin is a graduate of the University of Maine, 1916, and since that time has been teaching. She comes to the University from Christian College, Columbia, Missouri, where she was Instructor in Mathematics.

Mr. John H. Corbett has been appointed General Secretary of the University Y. M. C. A. Mr. Corbett received the B. A. degree, Hillsdale College, in 1915. During his college course he completed a three year summer school course in Y. M. C. A. county work at Lake Geneva, Wisconsin, and also served one year as Assistant County Y. M. C. A. Secretary of Hillsdale County, Michigan. In September, 1915, he became County Y. M. C. A. Secretary of Eaton County, Michigan, which position he held until June, 1917, when he entered Y. M. C. A. war work. In the service he received the commission of Second Lieutenant and rating of Reserve Military Aviator. From March, 1919, to June, 1920, he served as Town and County Secretary of the Y. M. C. A. National Council of Canada with headquarters at Winnipeg. He came to North Dakota in June, 1920, as Associate State Y. M. C. A. Secretary, which position he occupied, until he accepted the position with the University Y. M. C. A.

Mr. Charles L. Ellis has been appointed Superintendent of Buildings and Grounds. Mr. Ellis was a carpenter by trade before beginning his work as a student at the University of Illinois. He took his A. B. degree in General Science in 1910 and the degree of B. S. in Architectural Engineering in 1920. He has taught Manual Training in high schools and has served as instructor on part time at the University of Illinois, teaching Drafting and Descriptive Geometry. He likewise worked for a year and a half in the office of the Supervising Architect of the University of Illinois and continued work part time in the office while he was finishing his work as a student in Architectural Engineering.

Dr. Karl H. Fussler, Professor of Physics, Head of the Department of Physics, comes to us from the University of Pennsylvania. Dr. Fussler received the A. B. degree, University of Indiana, in 1909 and the Ph. D. degree, University of Pennsylvania, in 1916. He served as an assistant in the Department of Physics at the University of Indiana for one year and as instructor at DePauw University for one year. He has been instructor and

assistant professor at the University of Pennsylvania since 1910; he has served as physicist at the Radium Laboratory at Jefferson Hospital, 1916-17; instructor with the Navigation Shipping Board School, 1918; lecturer in Physics at Drexel Institute, 1918-20. He is a member of the American Physical Society and of the Honor Scholarship Society of Sigma Xi.

Miss Charlotte Halgrim has been appointed Head of the Department of Home Economics, with the rank of Assistant Professor. Miss Halgrim took Home Economics work at Pratt Institute, Brooklyn, New York, and received the B. S. and A. M. degrees from Columbia University. She has had a wide experience in high school and state normal school teaching and did emergency home demonstration work during the war.

Miss Flora A. Hodge has been appointed Reference Librarian. Miss Hodge graduated from the University of Michigan with the A. B. degree in 1904 and served as a high school teacher for a number of years. She graduated from the Library School at Syracuse, New York, in 1907, and since graduation has served in the Library of the Agricultural and Mechanical College of Texas and in the Public Library at Cedar Rapids, Iowa.

Dr. Henry J. Humpstone, Professor of Psychology, comes to us from the University of Pennsylvania. Dr. Humpstone received the A. B. degree, University of Rochester, in 1906; the M. A. degree, University of Rochester, in 1912, and the Ph. D. degree, University of Pennsylvania, in 1917. Dr. Humpstone has had a wide teaching experience in high school, normal school, and college work. As a graduate student in the University of Pennsylvania he was an assistant in the Department of Psychology, and since 1916 he has been a member of the University of Pennsylvania faculty in the Department of Psychology. He was Clinical Psychologist, Juvenile Court, Wilmington, Delaware, 1916-18; Examining Psychologist in University of Delaware Reform School and Manassas Industrial School; supervised research at the psychological laboratory at the University of Pennsylvania, and is the author of a number of publications on topics of Psychology and Education. He is a member of Sigma Xi and of Phi Beta Kappa.

Mr. Henry J. Jeddelloh has been appointed Assistant Professor of Manual Arts. Mr. Jeddelloh received the A. B. degree, University of Wisconsin, in 1917, and the M. A. degree, Columbia University, in 1920. Mr. Jeddelloh has had nine years of in-



industrial experience in cabinet-making and carpentry and three years of high school and university experience in teaching. He is a member of Phi Beta Kappa.

Mrs. Helen M. Jeddeloh has been appointed Instructor in French (part time). Mrs. Jeddeloh received her Master's degree from the University of Wisconsin, where she specialized in French, and served as an assistant in the department. She has had three years of experience in teaching French.

Mr. Alva E. McCoy has been appointed Chemist and Sanitary Engineer in the Public Health Laboratories. Mr. McCoy is a graduate in Science from the University of Illinois, and has been doing special work in sewage disposal and water chemistry and allied problems for the past year at that school. He was connected with the Health Laboratories of the University of North Dakota from December 1, 1917, to July 1, 1918.

Mr. C. N. McCune comes to the University of North Dakota as Associate Professor of Law. He graduated from Ohio State University, with the B. A. degree, in 1909. Nine years later he received the degree of LL. B. from the School of Law of the University of Michigan, having made an exceptionally fine record. Mr. McCune has had extensive and successful teaching experience. He comes to us direct from the practise of his profession as a member of the firm of Pfau, George, Casey, McCune, and Carlyle, of Youngstown, Ohio.

Mr. Edgar A. Menk has been appointed Assistant Professor of Latin and Greek. Mr. Menk graduated from the University of Indiana in 1907, did graduate work in the University of Chicago, 1907-10, and in Indiana University, 1913-15. He served as Head of the Latin Department of the Richmond, Indiana, High School for two years; as instructor in the Classical Department, Indiana University, for seven years, and as Classical Instructor in the Louisville Male High School. Professor Menk is a member of Phi Beta Kappa.

Mr. Paul T. Nerhus has been appointed Instructor in Science in the University High School. Mr. Nerhus received the B. A. degree, St. Olaf's College, in 1917, and the M. S. degree, University of North Dakota, in 1920. He has had three years of experience in rural school teaching, was a student assistant in Chemistry at St. Olaf's College for two years, taught in the high school at Detroit, Minnesota, in 1917-18, and spent twelve months in overseas service.

- Mr. Howard W. Patmore was appointed Registrar to succeed Mr. H. H. Tuttle who resigned last April. Mr. Patmore received the B. A. degree, University of North Dakota, in 1920. He served as student assistant in the Registrar's Office for some time and was appointed Assistant Registrar January 1, 1919, which position he held until April 1, 1920, when he was appointed Registrar.
- Dr. Clarence Perkins was appointed head of the newly created Department of European History, with the rank of Professor. Professor Perkins received the A. B. degree, Syracuse University, in 1901, the A. M. degree, Harvard, in 1904, and the Ph. D. degree, Harvard, in 1908. He has had two years of high school and seven years of university experience in teaching. He comes to us from the Ohio State University where he held a professorship in European History. Dr. Perkins is the author of a number of publications on topics of European History, is now engaged on some research problems in the field of Modern European History, and is preparing a History of European Peoples for high school use.
- Mr. Herbert B. Sallee was appointed Director of Shops in the College of Engineering. Mr. Sallee received his B. S. in M. E. from the University of Washington. He has had practical shop experience and marine engineering experience. He comes to the University of North Dakota from the University of Washington, where he was a member of the faculty of the College of Engineering, in the Department of Marine Engineering.
- Miss Marian Stephenson was appointed Instructor in the Department of Home Economics. Miss Stephenson received the B. S. degree and Normal Diploma from the University of Washington. She has specialized in Art and Design work and has had practical experience in this line.
- Mr. George B. Wharen has been appointed to take the place of former Professor Crouch, as Head of the Department of Mechanical Engineering, with the rank of Professor. Mr. Wharen graduated from the Pennsylvania State College in 1910 with the degree of B. S. in Mechanical Engineering and later was awarded the professional degree of M. E. He has been for six years Instructor in Mechanical Engineering at the University of Pennsylvania. Before taking his technical training in engineering he served a mechanic's apprenticeship and worked in the engineering departments of the American Locomotive Company and the Pennsylvania Railroad Company.

## Editor's Bulletin Board

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The April issue of the Quarterly Journal, as has been the custom for some years, will be given over to the sciences. Prospects are bright for an interesting and valuable number. The articles are timely and represent the results of much patient study, experimentation, and investigation. Among the topics will be the following:

1. The North Dakota-Minnesota Drainage Case, by Professor E. F. Chandler of the Department of Civil Engineering. This matter has been in the courts for several years and is of large and vital interest to both of the Dakotas and to Minnesota. It will here be reviewed and analyzed.

2. Accountability as Effected by Both Cortical Endowment and Endocrine Activities, by Professor A. D. Bush of the Department of Physiology. Dr. Bush here presents findings that should be better known by people generally, especially by teachers.

3. The Problem of Prospecting for Coal in Glaciated Areas, by Professor L. P. Dove of the Department of Geology. North Dakota is now particularly interested in her coal deposits. This study should be a real contribution.

4. Colors Develop by Cobalt Oxides, by Mr. Henry J. Witteveen of the Department of Industrial Chemistry. This study, too, owing to the greatly increased interest in everything pertaining to industrial chemistry, as one outcome of the World War, will be of great value.

Other studies are under way but not yet far enough along to be definitely announced.



# The Quarterly Journal

PUBLISHED BY

The University of North Dakota

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A. J. LADD,  
EDITOR

NORMANDEN PUBLISHING CO.



# The Quarterly Journal

VOLUME 11

JANUARY, 1921

NUMBER 2

## The Garden of Eden

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*Professor of Religious Education, Wesley College*

Hebrew curiosity was altogether too insatiable not to concern itself with the genesis of such things as moral evil, death, birth-pains, toil, clothing, and even the status of the serpent, and Hebrew genius was too resourceful not to supply explanations that have aroused and held the interest of men for some twenty-eight centuries. The story of the garden of Eden is a veritable repository of origins according to which these things are the outcome of an act of disobedience on the part of the first couple. In this well-balanced tale the first transgression occupies the place of chief importance. The other items traced back to their beginnings are grouped about it in subordinate relations.

Reading Genesis II.4—III.24, we learn that Jahweh placed the man formed from the dust of the earth in a garden planted in a district called Eden, exhorting him to cultivate it and to eat the fruit of all trees, save that of two trees—the tree of the knowledge of good and evil, and the tree of life. The man is warned that disobedience will result in death. No beast which Jahweh created satisfying his social needs, the man is presented with a wife fashioned from a rib taken from his sleeping side. In child-like irresponsibility and with their simple wants supplied, the pair begin their life together. But the serpent, more crafty than any other beast of the field, one fatal day makes his approach to the woman who was not present when the man was told not to taste the fruit of the mysterious trees, and insidiously raises a question intended to confuse her, "Yea, hath God said, [Ye shall not eat of all the trees of the garden?" The woman, not to be misled by such a gross misrepresentation, replies that permission has been granted to eat the fruit of all trees, save that of the one in the midst of the garden, evidently referring to the tree of the knowledge of good and evil, and ignoring the tree of life. She goes so far as to say that they have been forbidden even to touch the tree, which statement is clearly an ex-

pansion of the prohibition as communicated to the man. The serpent flatly denies her assertion that death will follow the tasting of the forbidden fruit, and insinuates that God's motive in warning them was to keep them from becoming like gods who know good and evil. Seeing that the fruit is good for food, held by its delightful looks, and seduced by the desire to be wise, she takes and eats and gives to her husband who does likewise. The fruit has the effect predicted by the serpent, the eyes of the couple are opened, but the knowledge acquired, far from bringing happiness, only fills them with a sense of moral condemnation and physical shame. In their humiliation they sew fig leaves together to cover their nakedness with aprons and girdles.

When they hear Jahweh walking in the garden in the cool of the evening, Adam and his wife in a panic hide themselves among the trees. In response to the call, "Where art thou?" the man, shrinking from a confession of the whole truth, alleges that he is afraid of Jahweh because he is naked. Brought face to face with his transgression, Adam, instead of acknowledging his guilt, casts the blame upon the woman and indirectly holds Jahweh himself responsible: "The woman whom thou gavest to be with me, she gave me of the tree and I did eat," is his cowardly plea. Questioned in her turn by Jahweh, the woman likewise displays an unrepentant spirit and tries to shift the blame to the tempter. "The serpent beguiled me," is her defense.

Ignoring these evasions and attempts to transfer guilt, Jahweh proceeds at once to mete out justice to each offender. Beginning with the agent in the miserable transaction, he pronounces a curse upon the serpent, condemning it to crawl upon the ground and to swallow dust, and predicting irreconcilable enmity between it and man. A threefold sentence is the portion of the woman: childbirth is to be attended by severe pains, her very affection for her husband is to multiply her conception and her sorrow, and her lord is to rule over her. Adam himself has been too unstable to act independently, he has permitted his wife to lead him astray; hence on his account Jahweh lays a curse upon the soil. The ground is to bring forth thorns and thistles, and in the sweat of his face man is to eat bread until he turns to dust. While the death penalty for their waywardness is not exacted instantly, the pair are not left in as much as a shadow of doubt as to its ultimate exaction. Jahweh next directs his attention to the physical condition of the fallen couple, and makes tunics of skins of beasts which take the place of the flimsy fig-leaf girdles with which they had provided themselves.



But the tragedy is not yet complete. Jahweh seemingly takes angels or spirits into his confidence and resolves to guard the approach to the tree of life, lest man, already god-like in the knowledge of good and evil, take the fruit of this tree also and become immortal. The man and his wife are accordingly expelled from the garden in Eden and Cherubim are stationed at the eastern side to prevent the return of the pair.

While no Babylonian parallel as close and startling as the one with which the priestly narrative of creation in the first chapter of the Bible has been compared, has been unearthed, scholars call attention to certain correspondences with the legend of Adapa. Three of the four fragments in which this Babylonian myth is preserved once belonged to the library which the Assyrian king Asurbanipal collected at Ninevah. The other fragment was found among the archives of Tell El-Amarna, Egypt, and was once the property of a king who lived in the fourteenth century before Christ.

Adapa, so the legend runs, was the son of Ea, god of humanity. He was endowed with divine wisdom but lacked everlasting life. With the intention of catching fish for the house of his master, he one day spreads the sail of his boat and steers the craft out upon the broad sea. A sharp wind from the south capsizes the boat. In his wrath Adapa breaks the wing of the offending south wind. For seven days Anu, chief deity, feels no refreshing south wind and in reply to his questioning is informed that Adapa is responsible. Mounting his judgment throne, Anu demands that the culprit be brought before him. In preparation for the ordeal Ea clothes his offspring in the garb of mourning, tells him how so to flatter the two beings guarding the gate of Anu that they will moderate the rage of their master, and warns him, no matter how sorely tempted, to refrain from eating and drinking what may be set before him by the chief god, lest he partake of the food of death and die, and finally exhorts him to anoint himself with the oil with which he will be presented and to dress himself in the clothing which will be provided. When the summons came to appear before Anu to answer the charge, Adapa, thus forewarned and forearmed, ascended to heaven. As anticipated, the wearing of mourning excited the concern of the two guards at the portals of heaven, and when Adapa explained that he was displaying the symbols of grief on their own account because they had vanished from the earth, they were astonished and complimented beyond measure. Somewhat placated, Anu has food and drink set before Adapa, who, recalling the warning of Ea, refuses to partake. But obedience to his creator proves unfor-

fortunate, for Adapa rejects nothing deadly but the very food and drink of life, of immortality. Had he eaten what was brought before him, he would have escaped death and added immortality to divine wisdom. The amazed Anu clothes Adapa in a garment which seems to take the place of the garb of mourning. The broken lines at the end of the story leave the impression that Adapa was sent back to earth, and sentenced to a life of sickness, disease, and restlessness.

As already intimated, the resemblances of this legend to the Bible story of the fall of man are somewhat general rather than exact and specific. In both tales knowledge is regarded as a divine power; Eve is tempted to acquire it and to become like gods, Adapa knows how to break the wing of the south wind. The accounts are one in the supposition that the eating of a certain food will make man immortal. They are agreed that the creator of man adopts extreme measures to prevent the taking of the wonder-working food; Jahweh drives man from the garden where the tree of life grows, Ea misrepresents Anu's gift to his offspring. The toil and pain to which Adam and Eve are subjected and the wanderlust with which Cain is cursed seem to reflect the punishment inflicted upon Adapa. The dressing of the ashamed couple in skins by Jahweh recalls the clothing of Adapa in another garment by Anu.

Differences of more significance than these general agreements are readily traced. At first Adam lacks the knowledge of good and evil, Adapa has from the beginning god-like wisdom. The knowledge Adam acquires is ethical, that of Adapa is non-moral. Adam suffers the consequences of disobedience, Adapa is the trustful victim of obedience to his maker. The religious setting of the Bible story is monotheistic, that of the Babylonian myth is polytheistic. The Jahweh of Genesis, man-like in several respects as he is, is dignified and impressive; the gods of the Babylonian legend are common and in their jealous rivalry stoop to underhanded practises.

Proof of the great antiquity of this Babylonian myth has led most scholars to reject the theory that it is only a degenerate version of the Genesis story of the fall of man. It appears to belong to cycles of tales told by the Semitic peoples who occupied the Tigris and Euphrates valley no one knows how many centuries ago. The Hebrews, themselves Semitic, at an early day left the Arabian desert and lived for a time in Chaldea. One feels inclined to believe that they made contributions to the vast body of legends of the Semites before they migrated to Palestine about 2000 B. C. and subsequently. It is likely that the myth of Adapa was transferred to Palestinian

soil at an early date where its polytheistic and morally objectionable aspects were rejected and some of its details modified. The fact that one of the four fragments extant was discovered in the archives of Amenophis, the notorious heretic king of Egypt in the fourteenth century before Christ, indicates at once that this part of the legend in its present form is at least five hundred years older than the Genesis account of the fall as it came from the hand of its author, and that at such an early age it had travelled much farther from home than Palestine. The popularity of the myth and the impact of the Babylonian civilization upon distant lands are neatly attested by the circumstance that this fragment was employed in Egypt as lesson material in the study of the Babylonian language, the words being separated for pedagogical purposes by dots made with red ink.

There is evidence that the Babylonians told stories that paralleled the Bible account of the fall of man even more closely than does the myth of Adapa. In the British Museum there is, for instance, the cylinder-seal with a picture of what looks like a temptation engraved upon it. It represents a palm tree bearing fruit with what appears to be a woman seated on the left side of it and a man on the right. Behind the woman a serpent stands erect upon its tail and towers just above her head, as tho speaking to her. Both human figures are stretching out a hand toward the tree as if to pluck fruit. The whole scene probably illustrates a Babylonian record, still unrecovered, of a temptation some features of which have been woven into the Genesis story. The relic is perhaps 4,500 years old.

The Bible narrative assumed its present form in the ninth century before Christ. That its frame work was imported and its ethical and religious teaching native is highly probable. It is impossible to trace all details to their respective sources. Some are borrowed, others are domestic. It is evident that features of Babylonian extraction were accommodated to the Hebrew environment. The reference to the fig leaves which the first pair sewed together, is, for example, a Palestinian touch, for while the fig tree is indigenous to Palestine, it does not grow in Babylonia. On the whole it is not safe to venture more than that in the Genesis story we possess a purified and refined version of an imaginative tale of man's early condition, which was current among the ancient Semitic peoples.

The biblical writer's description of the garden of Eden has provoked a great academic controversy as to the site the author had in mind. Altho some localities proposed have more geographical and historical foundation than others advanst with equal confidence,



it would be an act of supererogation and foreign to the purpose of this study to do more than to outline the notion to which I am tentatively partial. In the first place it is well to consider that the words garden and Eden are not used synonymously by the author of the story of Paradise. Eden is a district in which the garden is situated. Furthermore, we should not forget that the ancients had a relatively imperfect knowledge of regions at a distance. It is said that when Alexander the Great saw crocodiles in the Indus of India he at once jumped to the conclusion that he had discovered the sources of the Nile of Egypt! There is reason to assume that the early Hebrews shared with other peoples a similar tendency to confuse rivers and localities with which they were not thoroughly familiar. With these things in mind we turn back to the second chapter of Genesis and read that a river, evidently of generous proportions, flowed out of Eden, thru a garden and then divided into four branches, the Pishon, the Gihon, the Hiddekel or Tigris, and the Euphrates. Some of our trustworthy scholars have identified the Pishon with the Indus of the gold-country of India, and the Gihon with the Nile of Egypt. It may be that the biblical writer erroneously associated these two far-famed streams with the land of Babylonia which is drained by the two remaining rivers, the Tigris and the Euphrates. Insight into the nature of morals and religion does not insure the Bible author against geographical mistakes. It would be natural for the Hebrews to regard the Tigris-Euphrates valley where they had once lived and from which they had migrated, as the cradle of the race. There is, in fact, much to support the assumption. It is far from unlikely that the narrator visualized a garden spot, real or imaginary, in or near Babylonia when he penned the scene of idyllic happiness that was to be interrupted by the advent of sin.

As already stated the story of Eden should be evaluated as a primitive explanation of the origin of certain institutions, customs, experiences, and conditions which aroused speculation among the Hebrews as well as among other peoples of all ages. Harking back to a simpler age, the explanations are neither historical nor scientific. They were prompted by religious reflection. They are more faithful to moral and religious experience than to science or history as we know them. The paramount and enduring value of the Bible story is spiritual. The tale unfolds a racial and personal ethical process in imaginative form.

The marriage relation was by the Hebrews believed to have been directly instituted by the Creator himself in response to the

man's inner needs which not even the higher animals can satisfy. With the fashioning of a woman from the side of the man and the relation that springs up between them, the acts of creation recorded in this Bible story are brought to a close and a climax. Since she is bone of his bones and flesh of his flesh, the attachment between man and wife is closer than that between parent and child; in fact for this reason a man leaves his mother and his father and cleaves to his wife. The two are one flesh. There is here no intimation of the teaching that the family is the product of social evolution, of a process in which the husband was not the first but the last member of the family, being permanently domesticated only after centuries of alternating cajolery and force on the part of the mother of his offspring. Whatever objections may be filed against the Genesis conception of the origin of the marriage state, the ethical and religious principles undergirding it dignify and protect the home.

The present condition of the serpent attracted the thoughtful attention of the Hebrews. The sacred writer accounts in his own way for the serpent's peculiar form and manner of locomotion, its venomous and treacherous approach, and man's corresponding enmity against it. He interprets these striking characteristics as a punishment visited upon the serpent for its part in the introduction of evil into the world.

The serpent as described in Genesis falls into its place in the scheme of the natural order as conceived by the ancients. In antiquity a wisdom, more often malevolent than benevolent, was attributed to the serpent—a notion that seems to underlie the biblical statement that of all the beasts of the field which the Jahweh God had made it was the most subtle. Since the Hebrews supposed that at one time all animals were gifted with speech, it is not startling that the serpent in the garden addresses the woman in her own language. Furthermore, a tradition in the land of Israel taught that before it was punished for leading woman into temptation the serpent walked on two legs. This is borne out by the curse pronounced upon it by Jahweh: "Upon thy belly shalt thou go." The sentence would have no special meaning if in the mind of the reporter the limbless and wriggling serpent had not at some time had a more dignified and honorable form and existence.

A current fallacy discerns in the serpent the personal Devil in disguise. The Old Testament does not mention the creature we call Satan before the period of the exile. The story of the temptation in the garden received its present shape several centuries before

the idea of Satan develop among the Hebrews. This is not the place to trace the origin and growth of the notion of such a being, but it may prove helpful to make a few references to one or two aspects of the fascinating process. Zechariah, a prophet who labored toward the close of the sixth century before Christ, was the first Old Testament writer to use the word Satan. As he employs it the term is only a common noun and means, as always, adversary. It becomes a proper noun in Chronicles, written later than the book of Zechariah, where we read that Satan stood up against Israel and provoked David to number the people. In the prolog to the immortal drama of the Book of Job, which is younger than Chronicles, Satan figures as a member of the heavenly court, casting reflections on the piety of Job, and being charged with the coveted task of testing the loyalty of Job to Jahweh. In the apocryphal writing, the Wisdom of the Son of Sirach, we read that "by the envy of the Devil death entered into the world." Whether the serpent was the agent of the Devil or the Devil incarnate is not stated. In New Testament times the identification of Satan with the serpent is rather pronounced. The Book of Revelation describes a contest in heaven, a war in which Michael and his angels fall upon the great dragon and cast him, "the old serpent," "that is called the Devil and Satan, the deceiver of the whole world," down to earth and his cohorts with him. In another chapter of the same mysterious book we learn that an angel is seen coming down out of heaven to bind the dragon, the old serpent, which is the Devil and Satan, with chains and to confine him in an abyss for a thousand years.

Such New Testament passages unquestionably informed the thought of John Milton when he wrote *Paradise Lost*. He pictures Satan as an ambitious spirit who revolted against the authority of God and was driven out of heaven with his legions and cast into perdition. As the villain in the tragedy of the fall of man, Satan masquerades in the form of a serpent and tempts woman to taste the forbidden fruit. His diabolical purpose accomplished, he returns to Pandemonium, his palace in hell, and boasts of his success. Suddenly he and his entire crew are transformed into serpents. What appears to be the forbidden tree springs up before them, but when they take its fruit they taste dust and ashes. This masterly creation of John Milton will continue to challenge the admiration of man and at the same time to obscure the nature of the tempter introduced by the Genesis writer.

He who reads an identification of a personal Devil with the serpent back into the simple and realistic story of the fall takes



unwarranted liberties with the text. As already stated, when the tale was reduced to writing the conception of a prince of darkness called Satan was as yet unborn. The sacred author wants to show how sin started in the race. He is sure that the first pair were the original sinners. An animal with the faculty of making itself understood by man, an animal moreover of strange appearance and with malicious ways that demand explanation, constitutes a tempter altogether sufficient for the testing of Adam and Eve. The narrator seems to assume the existence of that which he is trying to account for, he does not pause to explain the meanness of the serpent, merely saying that of all beasts it was the most subtle. When justice is meted out by the even-handed Jahweh, it is the serpent itself and not a fallen angel or a personal Devil hiding in it that is condemned to crawl upon the ground and eat dust all the days of its life. In the Book of Job Satan is not a degraded and humbled creature, a hideous writhing serpent, but a rather self-possessed albeit cynical, being who does not hesitate to dispute the words of Jahweh himself. It is well to let the Genesis writer speak for himself.

Another thing that attracted the attention of the Hebrews and called for an interpretation was the suffering which child-birth entails. These pangs are traced back to the sentence upon Eve for her complicity in the fatal event. Whatever may be our own judgment, the author certainly assumed that if Eve had resisted temptation she would have brought her children into the world without mental and physical anguish. Otherwise the penalty imposed upon her would have been meaningless. It is useless to inquire whether child-birth was painless before the fall, for according to the narrative the children of the first couple were born after the expulsion from the garden.

That painful and sorrowful child-birth is to be patiently endured by womankind as a just punishment for sin is a dismal doctrine that has projected itself like a long shadow thru the ages and even into modern times. In fact, the gloomy tenet was expanded to include all manner of suffering. When the use of anaesthetics was introduced the violent opposition of the defenders of this tradition was aroused. The use of any means to mitigate suffering was declared to be contrary to the Scriptures. Texts in abundance were quoted against the taking of chloroform. In 1847 Dr. James Y. Simpson, a Scotch physician of eminence, was severely denounced for advocating the use of anaesthetics in obstetrical cases. He was charged with tampering with the primeval curse resting upon woman. He retorted that the first surgical operation recorded in the Bible

was performed under anaesthetic conditions, that when the Maker of the universe was about to fashion woman he caused a deep sleep to fall upon Adam. But the hosts of opposition were not so easily put to flight. They reminded Dr. Simpson of the circumstance that the deep sleep came upon Adam in the state of innocence—before the fall of man produced pain!

But those who feel disposed to dismiss the theory of suffering in Genesis with a tolerant appreciation of the inventiveness of the early Hebrews should give themselves pause. In establishing a connection between pain and sin the Hebrew writer is not altogether wrong. Child-birth among primitive peoples was perhaps no more painful and perilous than the similar process among animals. The conventional and artificial mode of life which custom has hitherto imposed upon womankind has tended on the whole to increase the hazard and the suffering of childbearing far beyond the normal degree. When to the unhealthful manner of living is added the debilitating effect of vice, if for the sake of clearness one may make the distinction between the two evils, the anguish and the sorrows of the woman in travail are multiplied. And what shall be said of many other forms of suffering that are preventable? There is more than a trace and a touch of truth in the teaching of Genesis that labor pangs are the outcome of sin.

The subjection of women to men was a social condition which was taken for granted by the Hebrews. Woman's lot was hard; her station as wife was that of a superior slave unless her personal charm and intelligence raised her status, she was purchased by her husband of her father or brothers, her husband had the right to sell her children into slavery or to sacrifice them upon the altar of Jahweh, she was not permitted to appear in court as a witness, she was powerless to institute divorce proceedings, altho her husband could abandon or dismiss her at his pleasure. She was not a person but property. Her precarious position was attributed to her participation in the tragedy in Eden rather than to the inhumanity and cruelty of men. There is an impassable gulf fixt between the explanation of woman's subordinate estate as a judgment of God upon her and the conception of marriage as a divinely ordained and sanctioned union of man and wife, which the author of the Genesis story in its present form did not seem to sense.

In the day that gave the tale birth, agriculture was the accepted and general method of obtaining a livelihood. The life of the man as an agriculturist is by no means unalloyed pleasure. Thorns and thistles infest the ground. Weeds seem to grow spontaneously, but

grains and fruits demand special and sustained attention and effort. Crops are subject to weather conditions. Pests of all sorts conspire against the bread of man. In the sweat of his brow man wrests his subsistence from the reluctant soil. The laboriousness and the disappointments which attend the cultivation of the fields and gardens are traced to Adam's act of disobedience. Because he weakly yielded to Eve, the ground is laid under a curse. Man is condemned to arduous and unrelenting toil until his body is resolved into the dust from which it is taken. To be sure, work was an item in the life of Adam before the fall. When he was placed in the garden he was exhorted to till it. For his own good a measure of labor was required of him. But the judgment which is visited upon him consists in the toilsomeness and in the peculiar vexations that render the lot of the tiller of the soil uncertain and hard.

The origin of clothing was likewise sought in the fall. The knowledge of good and evil created a sense of modesty which, in turn, induced the couple to sew fig leaves together into the aprons which were later displaced by the coats of skin provided by Jahweh himself. The ornamental value of clothing as well as its protection against the inclemency of the weather and against thorns and other sharp substances is ignored by the author of the theory.

We come now to a brief consideration of the death sentence imposed by Jahweh upon the fallen couple. Here one must move cautiously, lest the mind of the Bible writer be misunderstood. According to modern science pain and death antedated the advent of man and have been prime factors in organic evolution. When the story of Eden was penned the Hebrews had no highly refined ideas of the future life or of the function of death. At the most they held that the souls of the dead repose in a cavern in the center of the earth called Sheol where they have a vague passionless existence. It is needless to add that the conception of life after death, consciously blissful or unhappy, is a later development. Since the hereafter was painted in dark and cheerless colors, this earthly life took on a unique value. Longevity was regarded as a prize to be desired along with riches and honor and the life of one's enemies. It was the visible stamp of Jahweh's favor. The good died old. Children were exhorted to reverence their parents that they might dwell long in the promised land.

In the light of the restricted view of the afterlife the function of the tree of life growing in the garden in Eden may be appreciated. Its fruit had the property of prolonging life indefinitely. Man was forbidden to eat this mysterious food as well as the fruit of the



tree of the knowledge of good and evil. Analogies to the tree of life are discoverable in the literature of other peoples. Reference has already been made to the food of immortality obediently refused by Adapa. Following the directions of an ancestor of his, the hero of another Babylonian tale finds a plant with power to make the old young again, but before he avails himself of its transforming virtue it is snatcht away by a serpent which presumably lengthens its own life. The writer of the Genesis story creates the impression that if the first pair had remained steadfast under trial they would ultimately have been admitted to the tree of life. Some such idea seems to lurk in the resolution of Jahweh to drive them from the garden, lest they take also of the tree of life and live forever. Divine wisdom and endless life would have elevated them to the rank of deities. The author implies that the death of the offenders was in the nature of capital punishment. Their act of disobedience merits the death penalty. He does not intimate what is to become of the breath of life when the body of man is reduced to its original element—dust.

Whether death is a friend that swings wide the gates of an intenser life, or the last enemy to be overcome is a question into the merits of which the bounds of this study do not direct us. It has been and still is the subject of considerable controversy. One point can not be challenged. With an expanding vision of a conscious survival of death, the Bible has transformed the earthly paradise and the tree of life into the symbols of a blissful immortality. Christ assures the dying thief, "This day thou shalt be with me in paradise." And the seer in the Book of Revelation comforts and encourages the persecuted Christians of his day in a passage of delightful imagery, "To him that overcometh, to him will I give to eat of the tree of life, which is in the paradise of God."

At this juncture the tenacious doctrine of original sin demands attention. It has been a fixt notion in the minds of many that the story of the fall constitutes sound evidence of the total depravity of human nature. The New England Primer, one of the text-books used in colonial and even later days, summed up the doctrine in a simple rhyme:

"In Adam's fall  
We sinned all."

It may be said with a full measure of confidence that the dogma that the sin and guilt of Adam have been transmitted by organic heredity from generation to generation is a fantasy of rabbinical and later scholastic speculation. An unbiased reading of the Genesis

account yields nothing more in the nature of a penalty for the first sin than suffering, toil, and physical dissolution. There is no hint that Adam's fall has made man constitutionally evil. To point to Cain, the first murderer, as incontrovertible proof of inbred depravity is both to ignore the acceptability of his brother Abel in the sight of Jahweh and to deny to Cain the moral responsibility tacitly granted to his father Adam.

It is only by the arbitrary picking and choosing of proof-texts that the Old Testament can be forced to teach the inherited corruption of man. For the passages generally cited for the innate evil in the race, others which maintain the contrary may be quoted. Over against the statement that Jahweh will not again destroy all life with a flood, because the inclination of man is evil from his youth, should be placed the equally positive assertion of the priestly narrator of the later creation story that man was created in the image of his Maker, and the fact that this author is his version of the deluge refuses to take notice of the pessimistic view of human nature. Over against the lament of a David who is led to repentance of his dual crime of adultery and murder by the timely rebuke of the prophet Nathan, "Behold I was shapen in iniquity; and in sin did my mother conceive me," should be placed the normal estimate of the race, "What is man that thou art mindful of him? and the son of man that thou visitest him? For thou hast made him a little lower than the angels (God, in the revised version), and hast crowned him with glory and honour." When we are reminded that our Lord is a jealous God visiting the iniquity of the fathers upon the children unto the third and fourth generation, the laws of association should bring into mental focus the rest of the statement which is that he shows mercy unto thousands of them that love him and keep his commandments. It ought to appear that the Old Testament is not an arsenal where one may equip himself with an impenetrable armour of depravity texts. Before any Bible passage is quoted in support of the theory of the inborn corruption of the race, a conscientious effort should be made to ascertain whether the text is poetry or prose, and whether it represents a lower or a higher stage in progressive religious thought.

Not that Genesis denies that the race rapidly degenerated. Nothing could be at a farther remove from the fact in the case than the supposition that the writer teaches that man collectively maintained himself on a high moral level. On the contrary, Cain, the firstborn of the original pair, beome an outlaw and the progenitor of a hopelessly bad line. Seth, the third son of the first couple,

begins a more promising departure, but before ten generations from Adam have passed away Jahweh is moved by the universal corruption of the race to bring total destruction upon the world of men and land animals. But personal and persistent disobedience to the dictates of the religious spirit of the age and consequent depravity is one thing, and moral degradation thru the physical transmission of the sin and guilt of the original transgressor is quite another. It is wholly unnecessary to go back as far as Adam to locate responsibility for the moral ruin of most individuals.

At this point, if not before, one almost instinctively recalls Paul's oft-cited expression in Romans, "Thru one man sin entered into the world, and death thru sin; and so death passed unto all men, for that all sinned." Paul in this far-reaching generalization and parallelism is expressing in the terms of his conception of the redemptive work of Christ the doctrine of the schools of his day that there is a connection between the sin of Adam and our own. Some careful expositors are of the opinion that Paul is here no more to be taken literally than where he speaks of being crucified, dead, buried, and risen with Christ. It is, however, a fact that in Paul's time the notion of the fall of the race in the transgression of Adam was generally accepted and constituted an important part of his rabbinical inheritance. Paul himself was more interested in man's redemption than in his fall. He does not discuss man's estate and condition before the fall, nor how sin originated and how it is transmitted from one generation to another. About all that he actually does say is that man is a sinner, that sin is in the human stock and has been since Adam, that sin is constitutional, and that death is the result of sin. His statement is so general that it can be accommodated to a variety of theories of depravity.

One feels inclined to hold St. Augustine (354-430) rather than St. Paul to accountability for the popularity and boundless influence of the dogma of original sin and depravity. The fact that in his youth Augustine was a libertine and a profligate must have been a personal source of his doctrine of innate sin. He finds the whole human family in seminal existence in Adam, all generations of the race potentially in the loins of the first man. In the light of his own moral history it is not a marvel that he specifies that sin and guilt are transferred from generation to generation thru the reproductive impulse. In baptism man is regenerated; hence all unbaptized, both infants and adults, are lost. Following personal trends Augustine developed and made the most of St. Paul and of his own teacher Ambrose. He would reduce life to a judicial trial.



In his rigid system everything depends upon what is done for man and nothing upon his inner growth and expansion. It is almost impossible to overestimate his impact upon the doctrines and practises of both the Catholic and Protestant branches of the Church.

It is refreshing to turn to the words of Jesus and read that little children are members of the Kingdom, that their angels (spirits) do all the while behold the face of the Father, that unless the adult gone astray becomes as a little child he can not enter the Kingdom, and that it is far better to be dragged by a millstone to the bottom of the sea than to be guilty of offending one of these little ones. In his teaching there is no trace of the theory of the racial corruption as an organic inheritance from Adam. One has a right to trust the spiritual perceptions and moral intuitions of Jesus. Biology and psychology lend him their support and sanction. Biology teaches that moral character as a personal attainment either good or bad, is not transmissible from one generation to another by blood heredity. Psychology sees in the infant nothing to which there attaches any moral quality, merely a set of propensities which are simply natural and which can become sinful only when consciously exercised and knowingly perverted.

Altho the story of the fall is not in its final evaluation to be understood as history or science, its underlying principles are, however, true to the moral experience of the race. There is no warrant in Genesis for the assumption that the first couple were created perfect and that their wilful act plunged both themselves and their posterity from such a lofty plane that the most spiritually-minded among us is but a filthy remnant of their pristine glory. Adam and Eve, it is true, had the gift of speech, but aside from this they are pictured as primitive beings living a life of the simplest relations. They were morally undeveloped. Theirs was the innocence of ignorance, which can become virtue only when subjected to trial and proved. When the test was applied they consciously failed. Altho science teaches that our primitive ancestors emerged from a state of savagery characterized by a fierce conflict of opposing brute forces, in its fundamentals the record of Adam and Eve is consistent with what many hold to have been the most probable course in the moral life of the race. At some time in his evolution man became aware of two kinds of conduct, a higher and a lower. Before social values were recognized man was neither moral nor immoral but merely non-moral. It is patent that at some point, no one knows how far back in the history of the race, man revolted against the mandates of his conscience, and, elementary as his ethical discrimin-

ation was, fell under his own condemnation. And nothing could be more self-evident than that the majority of the ills of mankind are traceable to the unsocial action of somebody. In their general and moral outlines, there is, then, no conflict between the evolutionary conception and the simple Genesis story.

Nor does the experience of the person who today yields to temptation differ essentially from that of Adam. The tragedy of Eden repeats itself in the moral defeat of the last man to succumb to the lower impulse; there is self-consciousness and self-condemnation and, alas, often an attempt to transfer responsibility. As in the garden of the story, there are forces in our modern world which tend to complicate and confuse moral issues and to envelop one in an ethical fog. The promptings of the senses, the appeal of the instinct of curiosity, the desire for power which knowledge confers, are all praiseworthy when properly motivated and directed, but when they obscure the higher and nobler and diviner obligations of love and justice and duty they constitute temptation in its most insidious form.

# The Appreciation of Bible Literature\*

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Without any doubt the Bible is the best known of books. Its annual sale far exceeds that of the most popular "best seller". Its ideas—its very words—have entered vitally into the tissue of all English literature. It has inspired music and art. In the life and thought of all of us it plays a part that is unique. In fact, it seems almost absurd to assume the necessity of discussing the subject you have assigned me.

And yet, in spite of what I have said, the necessity exists, for modern scholarship has in these days given us a new Bible. Yes, just as modern science has given us a wonderful new world in which to live—a world of marvelous forces and mighty laws and rich resources utterly unknown to the men of a century ago, so critical and historical scholarship have given us a most interesting new Bible, far less mechanical and far more spiritual than the one our fathers knew. I take it that it is the appreciation of this new Bible that I am invited to discuss. In one of his addresses President Faunce of Brown University uses the following illustration. "In a certain museum," he says, "there lie in the same room a meteorite and a section of a California tree. The meteorite, so far as the earth is concerned, has no history. It appeared without warning from the depths of space, fell hissing thru our atmosphere, and has since remained unchanged. We can wonder at it, we might worship it, *but we cannot use it*. But the tree bears in all its concentric rings the marks of its origin and its development. The story of a living organism is in its every fibre. The sunshine, the rain, the soil, have been slowly built into its substance." As we study its polished surface and count its rings we comprehend something of the story of its growth and appreciate why it is so compact and strong and beautiful. Such is the difference between the old conception of the Bible and the new. According to the old theory it was dropt down from Heaven by some unknown and unknowable process; according to the new theory it *grew* by intelligible ways and means.

I will not deny that the meteorite conception may have been helpful in its time. Perhaps some have been aided by the statement set forth at the University of Oxford many years ago by Dean Burgon

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\*An Address given at the State Federation of Women's Clubs, October 6, 1920.



who declared: "Every book of the Bible, every chapter of it, every verse of it, every word of it, every syllable of it, every letter of it, is the direct utterance of the Most High, faultless, unerring, supreme". There are some, no doubt, who still cling to this idea. But to most intelligent people, now-a-days, it seems irrational, unworthy, and impossible. Surely it is utterly at variance with anything known in human experience. It does not accord with a host of demonstrated facts. It violates every literary principle and involves a serious reader in countless difficulties. It lays the Bible wide open to such attacks as were made by Thomas Paine and Robert Ingersoll, and offers a student no ground for enthusiasm or interest except that afforded by blind, unquestioning credulity.

Serious Bible students have, therefore, been obliged to abandon the "meteorite" or "dictation" theory. As one of our greatest American theologians has said: "It is certain that divine influence did not enter the Scriptures by dictation. These writings could not be dictated; they are too human and alive, too full of life and feeling, too evidently suggested to living writers by living occasions". No, the Bible is not a miraculous meteorite; it is *not* what Joseph Smith claimed that the so-called Book of Mormon was—a divinely perfect book put together without the active help of human minds. No, quite the contrary. It grew out of actual life. It is a series of great human documents expressing the sincere faith and insight and aspiration of many noble men and women, who thru genius and training and environment and experience became inspired with a clearer vision of God than has been vouchsafed to most, and who were constrained by their quenchless faith to put their thoughts and feelings into burning words. They felt with God and were able to look at life, not from the ordinary temporal, trivial, misty point of view, but from the point of view of eternity. This impelled some to write history to show that God is an unescapable factor in all human relations and activities. This awakened the psalmists and made the prophets. This gave its fullness to the thought of the apostles. Dean Farrar has suggested the richness of the Bible's human quality in these words: "It was written by all sorts and conditions of men; by the poor as well as by the rich; by the lowly as well as by the exalted; by poets and chroniclers; by passionate enthusiasts and calm reasoners; by unlearned provincials and Alexandrian theologians; by philosophers who attained from reasoning and mystics who saw by intuition, and practical men who learned by experience the truths of God".

To appreciate the Bible then in its real power and beauty, we

must approach it from the literary and historical points of view. We must see in it a record of the thoughts and outreachings of many generations—a record of a growing revelation coming to a long series of earnest men all feeling after God if haply they might find Him, groping at first amid the crude and childish conceptions of a primitive race and catching only scattered glints of light amid the general gloom, but slowly emerging into a less murky atmosphere and gaining more rational and philosophical views, until in the fullness of time came the divine Teacher of Nazareth who gave the supreme revelation. The ethical and religious values of this old library necessarily vary. The later laws are much more just and humane than the earlier. The later prophets and psalmists are, of course, more clear-sighted and spiritual than their forbears, the writers of the primitive ballads and folk-tales. As we all know, Jesus did not hesitate to set aside many of the teachings of his predecessors. Religiously, therefore, the value of a Bible book depends entirely upon how its spirit and its ethics measure up to the precepts and parables of Christ. The Bible teaches what it teaches *last*.

Historically, however, all the books are intensely interesting, if we look for the right things, just as the first faltering step of a little child is just as interesting in its way as the stalwart stride of an accomplished athlete. In those of earlier date we shall not look for exact science or authoritative teaching. But we shall be interested to see how among this wonderful people there grew up a body of myth and legend, of ballad, folksong, and legal code, all centering in the idea of *one great righteous God* who rules the world with justice and mercy, and who demands justice and mercy from all his worshippers.

We must grant that Jehovah at first frequently appears as a tribal god with limited jurisdiction, that he is sometimes represented as fickle, changing his mind, and repenting of his actions. We must admit that some of his early worshippers misunderstood him to the extent of thinking that he would delight in human sacrifices. But when all this is allowed, Jehovah still stands forth as the sublimest deity known to the ancient world. He was a spiritual presence dwelling not in houses made with hands, impossible to represent by an image of wood or stone or gold. How different from the cruel, immoral gods of the other nations! How different from the Olympian deities of Greece and Rome, “the gods who live at ease”, the gods who, “careless of mankind”, as Tennyson says:

"Lie beside their nectar and the bolts are hurled

Far below them in the valleys and the clouds are lightly curled  
Round their golden houses, girdled with the gleaming world."

As the years swept by, the conception grew ever purer and more exalted, the power attributed to Jehovah grew more extensive, and the approach to him more spiritual. To trace out this development with intelligence and interest is to appreciate the Old Testament.

Approached in this spirit, and with this idea of an envolving faith, the early books of the Bible are found to be, as already suggested, a curious blending of myth, folk-lore, primitive ballad, local legend, early laws and later comment. They were put in their present form many centuries after the events narrated—perhaps a thousand years after the death of Moses. The anonymous authors were devoted men who gathered up the various materials in the way then customary and combined them into a consecutive narrative. It is as if in this tercentenary year some one should write a story of early New England, bringing in some of William Bradford's famous history, a bit from Cotton Mather's *Magnalia*, a few stories from Sewall's *Diary*, certain oral traditions known to the older inhabitants of Plymouth, a selection of the "blue laws", a few poetical quotations from the *Bay Psalm Book*, from Wigglesworth's *Day of Doom*, and from Anne Bradstreet's *Contemplations*, as well as excerpts from Longfellow's *Courtship of Miles Standish* and Whittier's New England ballads, blending all together in a continuous narrative, careless as to the exact authority of the story or poem, but selecting all with a single controlling motive, that of showing, let us say, the quiet courage and religious zeal of the fathers. A strange way to write history you say. Yes, a very strange way indeed in this scholarly and critical age; but not a strange way in a simple and primitive time. In fact, it is precisely the method known to have been used in other ancient books. But strange or not, it is clear that this was the method used by the old redactors who gave us Genesis and Exodus, Joshua, Judges; and the rest. Scholars have actually picked out the various strands—strands which by their plain differences in language, literary style, and general spirit are easily detected by a competent scholar.

A careful reading even of the English translation will show some indications of the composite structure. In fact the redactor frequently gives us the sources of his material, and in the Revised Version the poetical parts are indicated by the printing. Such a snatch of poetry is the puzzling passage about the sun's standing still, a practical bit quoted from the Book of Jasher, a book of old heroic



ballads. There is no more reason for believing the historical accuracy of this than there is for believing the accuracy of the same figure when we find it, as we do, in the old French *Chanson de Roland*. In the latter case we say, without a moment's hesitation, that it is simply an old poet's way of impressing us with the fact that the battle was long and terrible. And this is just what we should say when we read the poetical fragment relating to the fight with the Amorites at Ajalon.

Yes, the value of these old books does not depend upon their historic and scientific infallibility, but upon their spirit and religious temper. As we all understand, the value of Dr. Hale's famous story *The Man without a Country*, does not in any way depend upon its historicity. As a matter of fact it is pure fiction. But it has probably inspired more people to love the flag than any other American book. So is it with these fine old Bible stories. The great idea which the collectors had, the big unescapable truth which they strove to impress upon the reader is that men cannot afford to leave God out of account, that faithlessness to Him and to righteousness always spells ultimate disaster, while fidelity to Him and to duty, while it may not seem pleasant for the moment, always proves, in the long run, to be the only path to permanent peace.

To read the early chronicles in this spirit, to note the various aspects of life presented, the many problems these old heroes had to meet, to follow them in their successes and their failures, to realize the author's consistent insistence upon honesty, justice, purity, loyalty, as these were understood in those primitive times, to observe the standards growing higher, as we move down the centuries, but to appreciate that the central unifying theme is always the same: Thou shalt love Jehovah thy God with all thy heart and deal justly with thy neighbor—this is to find a rich new interest in the historical portions of the Old Testament and to appreciate them as they should be appreciated.

An interesting example of Old Testament story is the familiar account of the great flood and Noah's deliverance therefrom. How much historical foundation there is for it we can let the archaeologists and geologists determine. The fact that should interest us is not the historicity of the tale but the meaning of it. Here is a world-old legend—a legend that was hoary with age before the time of Abraham, a legend told in many tongues and in many different forms. The Biblical account is evidently closely akin to the older Babylonian account, which has recently been discovered. The points of resemblance are striking. But still more striking are

the points of difference. In the earlier polytheistic story known in ancient Babylon, we are told of many gods who quarrel among themselves, act like foolish, spoiled children, and bring on the flood without any rational reason. The tale has little ethical or religious significance. It puts no premium on righteousness. It is gross and absurd. The Bible story on the other hand, is definitely monotheistic; it speaks of only one God; moreover it is profoundly moral and is shot thru and thru with spiritual significance.

Did time permit I should be glad to discuss others of these fine old stories, so simple, so human, so straightforward, revealing their sincerity often times by their very naivete, but always rich in wisdom, and suggestive of eternal values.

When we come to the Psalms we find in them also the result of a long development. The Hebrew Psalter is a national gallery of song, a wonderful anthology of lyrics something like Palgrave's famous *Golden Treasury* of English poems, representing the best work of many poets during hundreds of years. The nucleus was, perhaps, made by the famous Shepherd king, but, as the Revised version clearly indicates, there are at least five separate collections bound together. Many of them—probably the great majority—were not composed until the Exile or after. They represent the ripe religious spirit of an age which had advanced in experience and religious culture far beyond the somewhat primitive and turbulent times of Saul and David. The fact that the entire collection has been attributed to David is not more anomalous than the fact that we speak of the latest unabridged dictionary, containing such words as *aeroplane* and *camouflage*, as *Webster's Dictionary*, altho, as a matter of fact, Noah Webster died seventy-seven years ago and never heard of half the words for which he now stands sponsor.

To appreciate these beautiful lyrics, moreover, we should regard their form. Great literature must always possess two elements. It must be like an apple of gold in a basket of silver. It must have noble content and beautiful expression. The Psalms meet this test. Their thought and feeling represent the highest reach of lyric aspiration. The soul, longing for communion with the divine, panting after God as the spent hart panteth after the water brook, or rejoicing over its blessings with exceeding great joy, or bitterly regretful for its wayward wanderings, here pours itself out with a sincerity and power unmatched elsewhere. Some of the so-called "imprecatory psalms" are clearly not up to the level of the best. They reflect the spirit of a cruder age or of less noble writers. But the general tone of the poems is wonderful. In no other ancient literature

is there anything so human and at the same time so divine; in no modern literature is there anything that approaches them except the pieces they themselves have inspired.

Of their form John Milton, who was certainly a judge of such things, said long ago: "Not in their divine arguments alone, but in the very critical art of composition, the Psalms may be easily made to appear over all kinds of lyric poetry incomparable." Hebrew versification is based not on rime and rhythm as we understand them, but on parallelism in sentence structure—upon a kind of *rime in ideas*, as it were.

"Fret not thyself because of evil doers,  
Neither be thou envious against the workers of iniquity,  
For they shall soon be cut down like the grass,  
And wither as the green herb."

Sometimes the parallelism is in triplets rather than in couplets.

"Blessed is the man that walketh not in the counsel of the  
wicked,  
Nor standeth in the way of sinners,  
Nor sitteth in the seat of the scornful."

Many of these poems, as the forty-second and forty-third (properly one psalm), and the hundred and seventh, are written in regular strophes with beautiful refrains. The one hundred and nineteenth is a wonderful acrostic poem divided into twenty-two stanzas of eight lines each, every line in each stanza beginning with the same letter, and the whole arranged in alphabetical order. Of the beautiful figures found in the Psalter, the exquisite touches of Nature, the richness of historic allusion, there is not time to speak. Suffice it to say that by their intrinsic charm and power they have appealed to seventy generations of noble men and women, have sustained martyrs, inspired saints, and sweetened the lives of untold millions.

To me this view of the psalms as a developing collection—the view, by the way, now universally held by all real scholars and explained in any up-to-date encyclopedia—is both illuminating and satisfying. For years I have not been able to understand how these beautiful expressions of aspiration, tenderness, and trust could have been written by David. The Bible itself represents him as living the life of a wild freebooter, raiding and killing, not unlike a modern Turk, and as cheating in the basest way Achish, King of the Philistines, at the very time when that King was befriending and protecting him. It represents him as believing in human sacrifices, as gathering round him a numerous harem, and as being a weak and



foolish father. It is true that under duress he repented in a way of one great sin, but how about many more to which his calloused conscience gave no heed? One can see little connection between these lovely lyrics, expressive of the most sensitive religious feeling and the life and character of the able but unscrupulous chief who organized the Jewish kingdom. One is willing to admit that religiously, as in other ways, he was no doubt in advance of the dark age in which he lived, but that he wrote the fifteenth psalm, or the nineteenth or the twenty-third seems incredible. And in spite of the little headings put in by some ill-advised commentator of long ago, no modern Biblical student thinks that he did. These and others of their kind were written many years later, after the Jews had been taught by their great prophets and been disciplined by their long exile. As already suggested, the headings commonly printed were no part of the original, and have no valid authority.

Of the prophets to whom I have just referred, what can I say in the time allowed? Only this, that the tendency has been to cheapen these splendid old sages to the rank of mere clairvoyants or necromancers, fortune tellers, who by some occult means could, like the witches in *Macbeth*, foretell future events, naming particular persons and prognosticating definite occurrences long centuries in advance. They never claimed such power; they never possess it. They were wonderful men, "god-intoxicated men", if you please, who, like Tennyson's ideal poet, "saw thru life and death and their own souls" and to whom "the marvel of the everlasting will" was revealed in an unusual degree. But their chief interest was always in their own day; their message was always a message of immediate social or religious reform. They had tremendous faith in the existence of moral order in this world, in the universality and inviolability of God's eternal law. They denounced breaches of this law—or at least what they took to be such—with fearlessness and force. They were, as a class, wonderful optimists, believing in the final triumph of justice, mercy, and peace. In no other literature are such splendid social ideals held up. No other poets, ancient or modern (except as they have been inspired by these very prophets or by the great prophet of Nazareth) have reached such exalted heights of spiritual vision.

Were there time I should like to speak particularly of Amos, the inspired shepherd of Tekoa, whose little book written about 750 B. C. is probably the most ancient book in the entire Bible. I should like to speak of Hosea, the sweet spirited saint whose own domestic affliction, instead of embittering him, only revealed to him more

clearly the love of God. Until recent years no one ever got much out of Hosea. I once talked with a venerable elder in the church who had read the Bible thru many times but who confest that Hosea was to him not only meaningless but repellent. The new scholarship regards it as the tenderest and most beautiful of the prophetic books. I should like to speak also of the great unknown prophet of the Exile, whose works tho written about two hundred years after Isaiah's time, were, by some accident, appended to Isaiah's roll and now constitute chapters forty to sixty-six of the so-called book of Isaiah, chapters which the historic Isaiah could not have written, but which in their exalted imagery, their burning eloquence, and their breadth of view are unsurpast.

I should also enjoy speaking of the striking "wisdom literature", the most conspicuous example of which is the Book of Proverbs. This is a compilation of pithy sayings preserved by a succession of men known as "The Wise" or the sages, who generation after generation collected, composed, and transmitted epigrams of wordly wisdom. Like the Psalms, the book represents the work of many authors, beginning perhaps in Solomon's time and running on for centuries. Here is to be found the collective practical sense of the entire nation, nuggets of wisdom revealing long experience in life and native shrewdness of a high order. The epigrams, as they stand, have little unity or sequence, frequently none at all; but arranged topically, as Professor Kent has arranged them, they form a unique and suggestive manual of conduct. There is not much about them that is religious, but they surely give us practical wisdom at its best.

Still more striking is the wonderful drama of Job. In this most interesting book some unknown author of a comparatively late time discusses the puzzling fact that very often the wicked seemingly prosper while the righteous suffer. The orthodox Jewish idea seems to have been at that time, as it was in the days of Christ that prosperity is bound to follow in the wake of virtue and that adversity is a sure indication of previous sin. This easy philosophy the author of Job does not accept, tho he presents its advocates and its claims in his dramatic colloquy, presenting at the same time, as vigorously as he can, the facts and arguments against it. Finally, by a bold device, he brings in Jehovah himself as one of the persons of the drama to speak out of the storm cloud in reproof of the blind bigots who want to interpret religion as pure pragmatism. Job himself, the protagonist of the play, is surely a picturesque dramatic character and his patience in affliction, his unquenchable faith in Jehovah, and his courage in daring to face the facts of life make him

one of the sublime literary heroes of all time. But to understand it, one must read the book as a whole; to think of it as a mere succession of texts is to miss its value. It is said of Thomas Carlyle that once when visiting in a Scotch home he was asked to lead the morning family worship. Opening the Bible at random he began reading Job. And having begun he kept on. Hour after hour slept by and still Thomas read on. Later, when asked why he had done so strange a thing, he replied: "Because there was no place to stop". The Sage of Chelsea was right. The Book of Job is a literary whole and to mutilate it is to miss its meaning.

But I have talked too long and said how little! Upon the New Testament I have not even touched. But there is doubtless no need. The sweet simple gospel narratives, the heroic story of the early work of the apostles and the planting of the church in Western Asia and in Europe, and the interesting letters which St. Paul and the others wrote to their brethern do not need such critical study for reasonable appreciation! Not that he who runs may get the full significance of the work. Each of the books, as a matter of fact, has a most interesting historical background, which, if understood, gives much added charm to its purusal. Each has a flavor, a personal interest of its own as well as a doctrinal value. But there is, after all, little question of authorship or meaning. The literary problem is easy as compared with the problem of the Old Testament.

To this last statement, however, an exception or two must be noted. First, then, a word about the Epistle to the Hebrews. Crudely attributed to St. Paul in common thought and indeed by the heading prefixt to it in the English version, it has, nevertheless long been considered by scholars, to be the work of some one else. Origen thought it the work of Clement of Rome; Tertullian considered Barnabas the author; Martin Luther assigned it to Apollos, a theory which has of late become quite general. That it is *not* the work of St. Paul is practically certain. The reasons for this certainty are given in any recent standard encyclopedia. It may interest the ladies to know that Harnack, one of the most brilliant of living New Testament scholars, assigns the book to a woman, to that Priscilla, the friend of Paul and Apollos of whom we read in the Acts and the Epistle to the Romans, as a leader in the churches at Corinth, Ephesus, and Rome. She is always mentioned in connection with her husband, Aquila, but, contrary to the usual New Testament practise, she is generally mentioned first, the clear implication being that she was considered the leading spirit. This fact of feminine authorship may explain the anonymousness of the work.



The most puzzling of New Testament books is undoubtedly the Book of Revelation. It has been treated more absurdly and crudely than any other book, surrounded with uncanny mystery, and regarded as a mathematical puzzle. These absurd interpretations are due to a lack of literary and historic perspective. We must remember that the book was written during a time of bitter persecution, when the early Christians were becoming discouraged and many were inclined to give up the faith. This book was written to encourage them by assuring them of their future triumph, and the ultimate overthrow of the cruel Roman power. It was written to a large extent in veiled and figurative language. Had the author said plainly just what he meant, not only he but every man who owned a copy would have been in danger of his life. The mere possession of such a treasonable book would have been fatal, if discovered. Accordingly the author wrote very largely in veiled language using figures and formulae more or less familiar to the early Christians, but supposed to be unintelligible to the Roman police. The author wrote indeed better than he knew. Whether or not he deceived the Roman police, he has fooled a good many people ever since. He surely had no idea of prophesying about the future power (and corruption, as some Protestant writers say) of the Roman Catholic church, of the rise of the German Empire, the course of the Great War, or the downfall of the Kaiser, or even of fixing the date of the end of the world. There is no Bible student of academic standing in the country who endorses such vagaries, altho many such fatuous ideas are afloat about us. The book, as I have said, was designed merely to encourage the persecuted Christians of the day to be faithful during the Reign of Terror thru which they were passing, by assuring them of the eventual triumph of Christ and the church, and by reminding them that fidelity to the truth will certainly bring glorious reward, that the Right seems on the scaffold and Wrong on the throne,

“Yet that scaffold sways the future, and behind the dim unknown,

Standeth God within the shadow keeping watch above his own.”

These, then, are my suggestions for the true appreciation of Bible literature. Read it with your eyes and mind wide open; read it in the light of modern conscientious scholarship; read it as the panorama of men's outreachings after God, and as the record of the gradual unfolding of the divine purpose for a slowly developing race; read it in comparison with other ancient books; read it in comparison with any modern book; read it in literary wholes rather than in scattered texts; read it for its content and also for its form;

read it with the candid judgment, the lively imagination, and the critical sense you would bring to any other book. Until you do all this you may love it in parts, you may exalt it as a fetish, but you will not appreciate it as you should. But if you do read it aright, the marvel of this ancient library cannot long escape you. You will come to see that its supremacy does not rest upon the decision of some church council of long ago, or upon an artificial sanctity that human tradition has thrown about it, but rather upon its own unique character. You will be convinced that because of its splendid breadth of vision, because of its real grasp of the problems of life, because of its knowledge of the human heart, because of its perception of the great spiritual values, because of its emphasis on the things that endure, these sixty-six books deserve to be considered in a unique way the very Word of God.

"What a work!" exclaimed Heinrich Heine, "Vast and wide as the world, rooted in the abysses of creation and towering up beyond the blue secrets of heaven! Sunrise and sunset, birth and death, promise and fulfillment, the whole drama of humanity, are all in this book."

# Points of Approach in the Teaching of Art History

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History of art is still a new subject in our college curricula, a few notable institutions excepted. Possibly along with other subjects History of Art has not yet reached the point where the name would necessarily suggest a well defined field with problems of its own. No doubt this still applies in a large measure to conditions in this country, altho a few universities offer thoro work along historical lines. More progress had been made in Europe up to 1914. History of Art was still well established there and its relation to history, psychology, and esthetics well defined. Scholarly work had been performed so that much of the best literature is still European in origin. Since the topic, as well as the manner of its treatment, is for many of us a somewhat variable quantity, a discussion of a few viewpoints that might help mold the subject matter may not seem amiss. The type of course under consideration would deal with the development of occidental art from ancient Egypt to the present. Matters relating to the detailed arrangement of the material will not be regarded as being within the limits of the discussion.

Looking at the subject from a wide angle one could reasonably expect as the first, if not the full, aim of such a study to consist in making the student familiar with important works of art. The characteristics of a few excellent works might be firmly impressed thus developing an intimacy with the essential monuments. Considering the general nature of the course—the fact that it is to give a fair idea of the art products of centuries—there is danger of confusion. It is imperative to avoid unessentials that are a burden to one's memory when one remembers that there are many foreign names and technical terms without which it would be difficult to get along but which are new to students. I recall the case of a general course in modern art. The instructor wasted valuable time during class in dictating a long list of names of the followers and imitators of Giotto. A few typical works including the chief exponents of each period might well be selected from the many. A variety of dates and names, especially of the lesser lights, can be avoided. It is hardly necessary to point out that the work should



not degenerate into a chronology of pictures and statutes or a biography of artists. An exposition of the chief facts of the style based upon illustrations calling attention to characteristics and pointing them out on the screen, if a lantern is used, would be perhaps more productive of results. All who are interested in methods of teaching will appreciate the difficulty the instructor has in keeping the picture rather than the spoken word in the center of attention. The tendency of students seems to be to cling to words without linking up their meaning with the visual elements. On the basis of personal experience the visual method of instruction has strong points in its favor, especially in view of the fact that the average person is apt to be weak in the power of observation.

Whereas a familiarity with the monuments is indispensable, it would, if taken alone, leave the History of Art incomplete. It is in fact only the first step toward evaluation, the investigation of those characteristics that make the monument a work of art. That the ability to discriminate or discover quality is of prime importance none will deny. In fact we may almost say that it is the chief aim in the study of the History of Art. It is the instructor's part to point out to his students what constitutes quality in particular examples. In most cases photographs, lantern slides, reproductions, and casts must be relied upon, and only in exceptional instances will original works of art make up the necessary equipment.

But before the question of judgment, with its emphasis upon principles in the formulation of which the student has as yet had no part, the particular problems that the artist or the period as a whole had set itself to solve might be explained. The student should first be made to understand the aspirations of the architect, sculptor, or painter in each case as far as it is possible to define them. His peculiar difficulties and the means and methods available for their solution should be discussed. The measure of success will then be gauged by the artist's own standard. It will be one of the problems of the instructor to present these aims of art in different periods to his audience and develop the "ideal of beauty", as it has been called, of the particular period, finally pointing out to what extent individuals have come up to the mark of their own setting. They will learn that different periods have manifested their ideal of beauty along different lines. Where old fields have been exhausted, new problems have risen reflecting the changed spirit of the age. The History of Art will then appear not merely as a sequence of good and bad styles, but rather as a succession of different ideals of beauty each a mode of expression of the civilization of its day.

Teaching the History of Art in this sense should widen the student's range of susceptibility to beauty in its various aspects. For the moment he would have to be encouraged to divest himself of his modern viewpoint. With a sympathetic understanding for a different atmosphere the student may gradually learn to discover and enjoy beauty in forms that at first acquaintance seemed foreign to his understanding. As with many other things within a set limit of time, not all students will gain an equally fine understanding and feeling for diverse qualities. That can only be achieved thru long association and is bound to vary with individual temperaments. We are after all chiefly products of our own age and in spite of our greater facility to assimilate different viewpoints, the average person will be more susceptible to the thing that he can understand automatically, so to speak. If we recall experiences we shall have to admit that our own taste has undergone changes. If one would emphasize the History of Art as a succession of different ideals of beauty expressing their respective cultural epochs, and keep fundamental principles in reserve, I feel a greater intimacy would be established between instructor and student. But when the instructor starts out with a standard of perfection by which he attempts to solve all difficulties he is more apt to get into the habit of talking over the heads of the students and consequently losing their interest. The less alert might understand but vaguely why one thing is praised and another condemned.

I admit that there is a temptation to lay down an exact statement of principles so that anyone furnished with these could decide for himself what comes up to the mark and what falls short, assuming of course that such a thing is possible. There might be a demand for short-cuts that would at once solve all questions. But principles tend to degenerate into dogmatic rules. Inherent in the nature of so called principles seems to lie the fact that they lack comprehensiveness. As soon as one tries to remedy this weakness they split up and lose their identity and often become useless. As a starting point at least one would hesitate to recommend the teaching of principles. Anything that does not easily fit into their schemes would have to be declared unworthy and given little or not attention. No doubt, the History of Art has been interpreted in that way; and we would not wish to miss these authors in our libraries.

Where the teaching of the History of Art is still in its infancy, it might be best not to give way to a present-day tendency to emphasize the primitives with a conspicuous neglect of periods of full development. One would not expect a general course of art history

to develop connoisseurs. An over critical attitude at the outset, limiting quality to a few restricted fields and masters, might easily result in breeding sophistication and a feeling of superiority where sincerity and enthusiasm would be more wholesome. Certain books and authors might be left to the more experienced, for I doubt the wisdom of confusing the minds of the students with too many authorities. As a result of the tendencies outlined above we should have to admit the legitimacy of discussing seriously Hellenistic sculpture. It would not do to declare offhand that Roman Art represents mainly a vulgar adaptation of the Greek. Flamboyant architecture or Baroque sculpture, in spite of its faults, if considered from the viewpoint of structure will have to be admitted for discussion along with the fifth century in Greece and the thirteenth century in France.

Once the differences have been pointed out and justice done to each period or master, it would be opportune to consider the similarities and draw comparisons. We cannot deny the existence of certain qualities that recur at different times in different aspects. It might now be shown how, besides the nature of the problem and the circumstances under which the work of art was produced, the material in which it was executed helped to determine its peculiar beauty. In connection with the question of material it would seem proper to point out how certain limitations and possibilities inherent in the nature of the material are universal and transcend periods and therefore tend to make for a certain similarity in the expression of beauty independent of style or nationality. But the material alone furnishes only one channel along which beauty can be developed. The extent to which the artist has recognized these possibilities or neglected them for other and stronger impulses or even gone beyond these limitations will vary with the artist and the period. We know that some qualities may be gradually lost and changed over into a different kind as art continues.

Summed up the problem would be to start out with an investigation repressing, at first, the tendency to formulate principles. On the one hand not every object coming within the range of art would be considered as possessing merit simply because it is part and parcel of the expression of the age. On the other hand a representative example of one style would not be condemned because we have grown accustomed to a different ideal of beauty. By avoiding extremes in both methods we might arrive at a sane balance. In other words History of Art should deal primarily with art and its



own problems, and its subject matter should be treated on a critical basis, the meaning of which the student would understand.

In discussing our subject we have so far chiefly had in mind individual periods or monuments. But as it is our problem to trace an historical development we shall have to establish connections between the periods. Questions of origins and influences of one style on another must naturally come in, but except for the more important periods all such elements, especially if they are matter of controversy, should certainly be left to advanced work of a more specialized character. A few well chosen examples illustrating definite points will be sufficient in most cases. To quote an example: The use of different materials requiring technical changes goes a long way to explain evolutions of style; but back of these lie causes intimately related to the lives of the people.

If we treat the History of Art as one mode of expression of the civilization of a period, some reference to others would seem illuminating. Concrete illustrations would show how tendencies in architecture, sculpture, painting or the decorative arts are also apparent in literature, music and other phases of the social life of the age. This of course opens up a large field. It can hardly be expected of the History of Art to follow thru the relation of art to economics, politics, religion, and so forth. A course in the elementary History of Art would thereby lose its own specific character and merge into a study of civilization generally.

To develop the varied manifestations of culture requires time and they will therefore have to be condensed to a few pregnant examples, especially as they belong to the subject matter only indirectly. In some instances parallels will easily come to one's mind, in other cases considerable preparation on the part of the instructor will have to be done to single out specific cases and link up things in a convincing manner. Some manifestations of the Greek spirit in the drama may be referred to in connection with Greek architecture and sculpture. The Gothic period may suggest a parallel between medieval reasoning as illustrated in scholastic thought and the development of Gothic structure in architecture. The Renaissance and Modern periods will furnish numerous examples of the interrelationships in art. In order to have these various relations mean something to the student they must be drawn in a less schematic but more penetrating fashion than Fletcher, for instance, has done in his textbook on architecture. A mere arrangement of a few facts, grouped under diverse headings, such as History, Climate, or Political and Social Influences, with very little attempt to estab-

lish connections and to show what these things have to do with the art of the time, is almost useless. Altho it is desirable that the instructor relate his subject to the cultural background, he should not transgress too far beyond the boundaries of his subject. The less time he is able to devote to it in the lectures without slighting the problem, the more careful and studious will he be in his preparation for that part of the lecture.

Wherever it fits in it might prove stimulating to call attention to allied studies such as esthetics and psychology. History of Art, as outlined should not attempt to encroach upon these fields. The term "beauty" therefore ought not to prove a stumbling block and involve us in an abstract analysis of the conception of beauty. Altho art history deals with, and explains, beautiful objects, yet the instructor is not concerned with a psychological investigation of the reactions in the minds of the students. The art historian himself may be interested in that study, but he would at the present act wisely in leaving questions of esthetics to be handled in a special course on that subject.

After having dwelt upon factors that would seem to belong to a discussion of the teaching of the History of Art directly or indirectly, let us indicate a few precautions not strictly applicable to the main field. Even if the suggestions may seem trite to anyone familiar with the subject, nevertheless they are worthy of consideration. It is safest not to assume any clear ideas on the part of the students in regard to the scope and nature of the work. Queer notions and misconceptions are still rampant with the public including our freshmen and sophomore students. With the publicity given to the sale of old masters by our daily and periodical press, whenever fabulous sums are involved, it might be worth while to point out that money received, whether large or small, is not always in proportion to intrinsic values rendered. In connection with this the instructor could make clear that age alone is in itself no criterion of artistic value. Altho an object may be of great interest to the archeologist, the art historian will judge it on a different basis. After the field has been cleared in this way the instructor could feel freer to develop his subject and be assured that he stands on a common ground with his students.

One can imagine that the teaching of the History of Art in this spirit would be working in the right direction. With the broadening influence that a sympathetic treatment ought to have, it seems plausible that a genuine interest in contemporary art would be encouraged. I do not know to what extent it can be shown that the

teaching of the History of Art in the past has fostered a lack of freedom or even a spirit of imitation. The method of teaching the History of Architecture to students of architecture in some of our colleges is not yet free from that criticism. At any rate History of Art should not continue that tendency unless we lay ourselves open to suspicion on the part of the artists whose support and sympathy we should certainly desire. For after all has been said the aim of art in colleges to a large degree is cultural as well as professional.

Among college students there still exists the feeling that Art courses involving practical work are only for a select few who happen to be "talented". Altho the ability to express oneself in the English language is thought of as being no more than a common necessity not necessarily involving any pretense to authorship, the corresponding stage for Drawing and Design has as yet hardly been reached. Few will admit that the power to use simple lines and colors for purposes of expression or the knowledge of a few basic art principles might be well considered as belonging to a liberal education. That type of student, distrusting his creative faculties along art lines, often feels less hesitancy in approaching the subject of art from the historical and appreciative side. If I understand the reason for art in the college curriculum correctly, it is there not so much to give professional training to future artists as to help create a higher standard of understanding and appreciation of art among laymen.



# The Shingle Weavers

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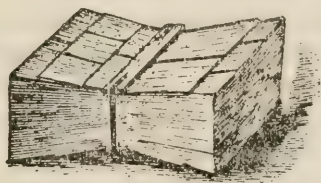
A striking paradox in American life is seen in political democracy with its equality of all men—in theory at least—on the one hand and what may be termed absolute monarchy or despotism in industry on the other. The prevalent idea has been and to a large extent is today that a man's business is his own, that he can run it to suit himself, and that the relation between employer and employee is one of master and servant. Wages, hours of labor, and conditions of employment under such a theory are fixt by the employer and if the worker as an individual bargainer is not satisfied, his remedy lies in seeking another job. Such paternalism, when the employer works along with his employees or knows every one of his workmen personally, may be tempered by humanity, but in the present stage of industrial development with its large scale production and corporate organization, the individual is lost sight of and becomes a mere cog in the machine. Organization in industry has necessarily its counterpart in the organization of workmen in trade unions.

The growth of trade unionism in the United States on any considerable scale began about the time of the Civil War and thus has been coincident with American industrial development. The development in number, organization, and financial resources of trade unions has been quite markt since 1880 and more especially so since 1897. The fact is that it is only during the last twenty-five years that trade unionism has come to be recognized as a permanent feature of American industrial life, and that collective bargaining and agreements between employers and trade unions representing the workers has become the usual method of procedure in a number of industries. In some circles, however, trade unions are still regarded as merely the result of the work of irresponsible agitators and so as something to be attackt and crusht; but a careful study of the growth and development of trade unionism in both England and America shows that it is in reality a social movement. Another fallacy is that labor unions foment strikes and that striking is the reason for their being. To this the trade unionist says: "Young and weak unions have many strikes; old and strong ones have few. If unions were mere striking machines, the opposite would be true."

The importance of moderation is insisted upon by most labor leaders. Collective bargaining is the ultimate goal of nearly all labor unions, and to reach it not only organization but discipline is needed. The strike is a weapon of last resort in most cases.

This essay on the International Shingle Weavers' Union of America is a study at first-hand of the history, structure, and activities of a single American trade union.<sup>1</sup> This national union, while not so old or so large as some of the national unions associated with it in the American Federation of Labor, is a typical union and has recapitulated in its brief history the development in structure and policy found in the older and stronger national organizations. In addition to this, in its membership and activities this organization is confined largely to the Pacific Coast, and this section of the country especially outside of California is an untilled field on the part of the economist as far as trade union activity is concerned. The manufacture of shingles and lumber is a basic industry in Washington and also to some extent in Oregon and California. The Shingle Weavers' Union in addition to the usual policies and activities of a trade union presents a very interesting development in an experiment in industrial unionism, a return to the craft system, and then a return again to an industrial form of organization.

The question naturally arises why a worker in a shingle mill is called a weaver and not, for instance, a shingle sawyer, a shingle cutter, or a shingle worker. A shingle, as is familiar to all, is a small, thin piece of wood used for covering the roofs and sides of buildings. It is sawed thinner at one end than at the other, and in shingling, the thick ends of one row are placed so as to overlap the thin ends of the next row. Weaving shingles is the process of dovetailing them together, after they are cut, so as to form the standard commercial bundle of shingles. Shingle makers are called weavers



because the work of shingle packers in a measure has the appearance of weaving. The cutting of shingles is done by a machine run by

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1. The writer would here acknowledge his indebtedness to Messrs. J. G. Brown and W. H. Reid, former officials, and to Secretary J. M. Norland for documents and information furnished, also to the delegates who courteously extended to him the privilege of attending several conventions of the Union held at Seattle and Everett, Washington.

a man called the sawyer. Weaving, or the packing of loose shingles into bunches, the form which we are familiar with (see illustration) is still a hand process. There has not been a machine invented as yet which supplants the deft hand, the quick eye, and the skilled judgment of the shingle weaver. These weavers are experts. Examine a bunch of shingles (four of these make a thousand, the unit by which shingles are bought and sold) as the carpenter takes it apart for shingling the roof and one will see the unique process by which the compact bunch has been woven. Now a wide shingle and now a narrow one makes the bunch the exact width, and all day long the weaver stands and swiftly seizes shingle after shingle thrown out from the sawing machine and without any false moves weaves them into compact bunches. The sawing or cutting of the shingles is done by sawyers. A small mill would have only one sawyer and that one would keep several packers or weavers busy. Moreover, the process of sawing is subsidiary to the final process of getting the shingles into the shipping unit or bunch and so the term shingle weaver has been extended by custom till it now applies to any one who works in any department of a shingle mill.

The beginning of organization among the shingle weavers seems to date from 1886 when the shingle weavers on the east coast of Lake Michigan became interested in the general movement for the eight-hour day which was then being urged by organized labor throughout the country. The first shingle weavers' union was organized at Muskegon, Michigan, in 1886. Another was formed soon afterwards at Manistee, Michigan, further north on the lake. This district was at that time a large lumber center as was also Wisconsin. Very little data is at hand concerning this period, but we are told that the workday in shingle mills at that time was twelve and a half hours. Girls and boys were employed together. Through organization, female labor in the mills was abolished and a ten-hour day gained. The organization was crudely formed and consequently existed for only a few years. Shingle manufacturing had then begun to move west and this was a contributing factor in disrupting the attempt to organize among the shingle weavers of the Middle West. The movement of the lumber industry westward continued and about 1890 the Puget Sound shingle weavers began to organize. The West Coast Shingle Weavers' Union was formed, with local unions at Ballard, Tacoma, Sedro-Wooley, Snohomish, Arlington, and Chehalis, Washington. For several years good industrial conditions prevailed, the local unions grew stronger, and a uniform wage scale was established. Taking a lesson from their employees,



the shingle manufacturers of Ballard, Washington, organized an employers' association in 1893 and declared for a reduction of wages. This the employees answered by going on a strike. The panic of 1893 soon followed and "this sounded the death knell of the West Coast Shingle Weavers' Union. Wages went lower then ever before in the history of the shingle industry. In one place a cut of seventy-five per cent was effected."<sup>2</sup> It was not until eight years later that anything more was done in the way of organization. In April, 1901, an unorganized strike for a wage increase was started at Ballard, Washington, and from there the strike movement quickly spread to other places. About the same time local unions were formed almost simultaneously in the states of Washington, Oregon, Michigan, and Wisconsin. As a result of this activity, a loose federation known as the Grand Council was soon organized.

The International Shingle Weavers' Union of America was organized at Everett, Washington, January 8, 1903. The delegates assembled pursuant to a call of the Everett Shingle Weavers' Union for the purpose of forming an international organization. Some twelve local unions were represented by delegates, and the officers of the Grand Council were given seats. A motion prevailed that all delegates and officers of the Grand Council be entitled to a voice in the proceedings. A resolution was then passed that the Grand Council be abolished and merged into an International Shingle Weavers' Union and that all funds and property of the Grand Council be turned over to the new organization. A constitution was adopted, officers were elected, and *The Shingle Weaver* was chosen as the official organ. All the officers elected were from Washington except one of the vice-presidents who was a member of a local union in Michigan thus giving that section representation.<sup>3</sup> A charter was issued in March by the American Federation of Labor and the new international union thus took its place in the ranks of organized labor.<sup>4</sup> The further history of the organization will be given not minutely or chronologically, but by an examination of the more important phases of its development.

The structure and government of the Shingle Weavers' Union is much like that of other trade unions. The primary unit is the local union, then comes the international union, with the peculiarity that the latter is divided into three districts. Like the states in the United States, the local unions in some instances preceded the international union, and in other and more numerous instances,

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2. See article by W. H. Reid, *Bulletin*, 1915, p. 72.

3. *The Shingle Weaver*, February 1903, p. 1.

4. *The Shingle Weaver*, April 1903, p. 8.

were organized by the international union. The International Shingle Weavers' Union reserves the right to fix, regulate, and determine all matters pertaining to the local unions, while to the latter is conceded the right to make all necessary laws for local government which do not conflict with the laws of the international union. A charter may be issued to seven or more skilled shingle mill employees in any city or town. Local unions are entitled to representation in the convention of the international union according to the following apportionment. Local unions with one hundred members or less, two delegates; for each additional fifty members, or major fraction thereof, one delegate. The voting strength of the delegates is one vote for each delegate. Convention expenses of delegates are paid by the local unions they represent. Only members in good standing are eligible to election as delegates or alternates. The president and secretary-treasurer of the international union are delegates at large to all conventions, with one vote each, but they can not be delegates from local unions of which they may be members. The officers of the international union are a president, a secretary-treasurer, and in the district in which the international headquarters are located three vice-presidents: all of these are members of the international executive board. The president and secretary-treasurer are salaried officials, while the others are paid according to work done. Voting for officials is done at the meetings of the local unions and the result reported to the international convention which ratifies the same or proceeds to an election if this vote is not decisive. The Executive Board consists of the president, vice-presidents, and secretary-treasurer; this body has general supervision of the business of the international and local unions and is vested with power to carry out its own rulings. Referendum voting has been the rule for some years and the executive board has power to name a period of twenty days in which local unions may vote on questions submitted for referendum vote, and local unions may vote during this time only. All questions are mailed from international headquarters at least ten days prior to the beginning of the voting period. On account of the wide territory included in the shingle industry and the consequent possible divergence in interests, various districts have been established. District No. 1 includes the territory north of the California line and west of the Missouri River. District No. 2 includes the timber districts east of the Missouri River. District No. 3 includes the territory south of the northern California line. Each district has the power to adopt its own wage scale, nominate and elect its own

officers. The presidents of districts, so elected, act as general organizers for their respective districts. Each district has power to pass such laws and regulations as do not conflict with the international constitution.<sup>5</sup> District No. 1, on account of the westward trend of the industry, has become the leading one. Of the forty-three local unions contributing to the treasury of the international union from December 1, 1914, to March 31, 1916, thirty-four were located in District No. 1, eight in District No. 2, and one in District No. 3.<sup>6</sup> International headquarters are located in Seattle and so this district and the international union are essentially synonymous.

The making of a wage scale is perhaps the most important part of the work of the international union. The scale is made at the international convention by a committee made up for that purpose. The results arrived at by the committee are reported to the convention and are taken up item by item and approved, disapproved, or amended. The 1914 wage scale, for example, is as follows: Filers, depending on kind of machines, \$5.50 to \$8.50 per day; sawyers, also depending on kind of machine, \$4.50 to \$5.50 per day, with provision for piece work if preferred; knee-boltermen, dependent on machine, \$3.50 to \$5.00 per day, with provision for piece work if preferred; dragsawyers, cut-off-men, and power-boltermen \$3.00 to \$3.50 per day; knotsawyers and clippermen, not less than \$3.50 per day; jointermen, not less than \$4.50 per day; packers, eight and a half cents per thousand for 16-inch shingles, with some exceptions as to machines at certain speed and varying conditions of work when the packer receives more. The wage scale is a minimum scale and does not prevent any member working under unfavorable conditions from receiving more. Marked deviations are, however, made on the advise of the international executive board. The wage scale is made up for the year and after the convention an effort is made to get the employers to accept it. Trade agreements directly with individual employers have been urged as a policy to be pursued.<sup>7</sup>

The reservation of the right to work by the day or piece is usually made and this brings up the question which for many years has been a subject of much controversy in this international union. The wage scale committee in 1915 recommended the elimination of the piece system, but a negative vote was registered. The committee, however, said: "This committee recommends that the

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5. Constitution 1916; Proceedings 1916, p. 8.

6. Report of Secretary-Treasurer, 1917.

7. Proceedings 1914, p. 4, 1916, p. 8, 1917, pp. 6, 66.



convention reaffirm our belief in the abolition of the piece work system as being detrimental to the best interests of our organization." <sup>8</sup>

The trade unionist knows by bitter experience that if very high wages are made on piece work, the rate is cut and greater exertion is necessary in order to make what he had made before. The result is a continued speeding up without a break in the vicious circle. Even if the rate is not cut, the speeding up is such that only the strongest can keep the pace. The "speed merchant" as he is called, is young and strong and can stand the pace for a few years, but only for a few years, and then is thrown on the industrial junk heap. One extremist says: "The piece-work system is without doubt the invention of the devil. The system is hideous. Strange as it may seem, men otherwise intelligent become fools. Under the piece-work system men willingly and readily consent to a lengthening of the working time and foolishly resent a shortening of the working day, ignorantly thinking that it would cut their wages." <sup>9</sup>

The enforcement of the wage scale and thus the recognition of the union—collective bargaining—is perhaps the main end of union organization. The shingle weavers' union has been forced by circumstances to be a militant organization thruout its history. Industrial conflicts are costly to both the union and the manufacturers. "It is not the part of wisdom on the part of either side," said President Brown, "to settle controversies by the crude method of the strike and lockout. But when either side takes an arbitrary stand and refuses to deal with the other, this means of reaching a decision must be resorted to."<sup>10</sup> From time to time campaigns of what may be called "union busting" have been waged. The idea is given out that unions are a menace and should therefore be crusht. These campaigns are usually waged during periods of hard times or when there is a suspected weakness in the union organization. The premises seem to be that unionism is the result of the work of a few agitators; an employer has the right to run his business as he pleases, and, especially, no outside influence is to be tolerated; therefore, all trade unions should be abolisht. One manufacturer writes: "Our great free-born American Republic, apparently, has begun to open its eyes to the fact that it has become a race of slaves and is taking the first steps towards throwing off the union yoke."<sup>11</sup> Still others say that the union is a labor trust and that labor leaders are mis-

8. Proceedings 1915, p. 1.

9. *The Timber Worker*, January 31, 1914, p. 1.

10. Proceedings 1917, p. 6.

11. *The Shingle Weaver*, January, 1904, p. 10.

leaders and that the eight-hour day and the union shop are all wrong.<sup>12</sup> Organization on the part of employers is a good thing, but on the part of the employees it becomes a menace to our great and glorious country. This idea of absolute monarchy, however, is hardly workable in the light of growing democracy. In England trade unionism has had a longer history than in this country, and collective bargaining is recognized as the logical method of settling differences and the employer does not consider it beneath his dignity to bargain with his workmen. The attitude, however, towards the shingle weavers' union, has been for the most part that of open or veiled hostility. A curious paradox is found in the fact that the manufacturers do the exact thing they bitterly denounce the union for doing. For instance, at a meeting of the West Coast Lumbermen's Association at Seattle in July, 1916, at which the writer was present, different speakers argued against the union label and the union shop. The chief arguments against the union shop were that it was un-American, unfair, and discriminatory. Peculiarly illuminating, however, was the plan to get all manufacturers to work together and to buy only from firms standing for the ideas enumerated. A merchant soliciting trade should be asked if his name appears on the directory of union opponents and if not, then no trade. The union shop is bad on the union side because it involves coercion, but on the employers' side the merchant whose name is not in the directory of trade union opponents should come to time or else lose business. In other words, a blacklist should be made of those not supporting the program of union smashing. It was also apparent that any manufacturer paying more than the association wage scale would be in disfavor with his fellow manufacturers. The union bogey conjured up by a fertile imagination is indeed fearfully and wonderfully made, but its creators should at least come into court with clean hands. Extremes breed extremes and the extreme animosity shown by some manufacturers is perhaps the reason for much of the bitterness shown at times by trade unions in the Pacific Northwest.

The increasing concentration of capital in the lumber industry and the organization of the manufacturers into various associations made it increasingly difficult for the shingle weavers—being the only branch of the lumber industry organized and representing but a small fraction of the men employed—to hold their own against the growing forces on the side of the employers. This condition raised the question of organizing all the workers in the lumber industry.

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12. *The Shingle Weaver*, May, 1906, p. 5.

After a good deal of discussion and on the advise of John Mitchell and other labor leaders, it was decided to extend the jurisdiction of the union and to organize all workers in the lumber industry on a departmental plan. The shingle weavers as organized, with those working around shingle mills not previously eligible included, were to constitute one department, the men employed in saw mills were to constitute another department, and the woodsmen, a third department—the idea being to combine in one organization the best features of both the craft form and the industrial form of organization. The convention of 1913 voted to extend the jurisdiction of the union so as to include all wage workers in the lumber industry. This was approved by the American Federation of Labor, and a charter was granted to the new organization with the title of the International Union of Shingle Weavers, Sawmill Workers, and Woodsmen.<sup>13</sup> The official title was shortened at the 1914 convention to that of International Union of Timber Workers. Assistance in organizing the sawmill workers and woodsmen was given by the United Mine Workers while for some time the American Federation of Labor paid the salaries of two special organizers. The removal of the tariff on forest products, the breaking out of the European war and the consequent depression in business obstructed the growth of the new industrial union and so in 1916 the shingle weavers relinquish jurisdiction over the timber workers to another union and became a craft union again under the old name of the International Shingle Weavers' Union. Substantial aid was given by the American Federation of Labor during this period of transition.<sup>14</sup>

Strikes by the Shingle Weavers' Union have been frequent, some being successful and others unsuccessful as in the history of other unions. A strike is usually the weapon of last resort in enforcing the recognition of the union, the acceptance of a wage scale, or the establishing of better working conditions. The shingle weavers found by experience that many manufacturers would be fair and grant reasonable demands but for the coercive tactics of one or two large manufacturers.<sup>15</sup> In such cases the strike is the only resource. A typical strike in its inception, altho with a tragic accompaniment, was the Everett one of 1916. The convention of 1916 reenacted the 1914 wage scale (outlined in another paragraph) with slight modifications. Many manufacturers accepted the scale and continued operation. Some twenty shingle mills in Everett and

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13. Proceedings, 1913, p. 8.

14. Proceedings, 1916, p. 8; 1917, p. 13.

15. *The Shingle Weaver*, July, 1906, p. 1.



some in other places refused, however, to raise wages by restoring the 1914 wage scale. Beginning in May there ensued a long and bitter struggle continuing for almost a year. Like all industrial struggles, it was costly to both the union and the manufacturer. The union persisted in the fight altho its membership was at the lowest ebb and in spite of the fact that it was entirely without funds and that industrial conditions were none too good.<sup>16</sup>

The struggle at Everett, because of certain incidents, ceased in its course to remain an ordinary altho long-drawn-out strike, but became in its essence a social struggle marked by turmoil and murder. Lines were tautly drawn with the strikers on one side and the manufacturers on the other; it was either all black or all white with no neutral shades. Disputes arose as to picketing and the making of speeches on certain street corners. The use of certain areas for gatherings or for speech making was forbidden. The assertion was made with some evidence of truth that the manufacturers had usurped the powers of the city government and were running the city thru the Everett Commercial Club. Into this state of affairs the Industrial Workers of the World, those storm birds of the labor world, projected themselves without leave or invitation from anybody. Gathering together in considerable numbers they appeared in Everett and began to exercise the right of free speech so dear to the heart of a radical especially when it is forbidden. The irate citizens thereupon compelled them to run the gauntlet of clubs and sticks and drove them out of town with the command not to return. The I.W.W.'s, bruised and battered, threatened vengeance and said they would put Everett on the map. The next Sunday, November 5, 1916, a number of them came to Everett on the daily boat from Seattle. A considerable number of citizens and officials were there ready to meet them and as the boat neared the docks shots were fired and a number on both sides were killed. Which side fired the first shot was never legally determined. One man out of seventy-five workers arrested was brought to trial and the result was a verdict of not guilty. The other cases were dropped. The defendant and his fellow prisoners secured the sympathy of organized labor and of some citizens not because they were I. W. W.'s, but because whether rightly or wrongly these groups viewed the case as one of free speech and the right of peaceful assemblage, or, at any rate, they condemned the lawlessness of the self-constituted citizens' committees which led up to the tragedy.

As a matter of fact, there is little in common between the In-

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16. Proceedings, 1917, p. 6.

dustrial Workers of the World with their revolutionary program, and a business union like the shingle weavers' union. The officials of the shingle weavers' union complain that the union has had no important contest with the employers in years, but this so-called organization has taken an uninvited part always with ensuing disastrous consequences. One official says: "Organizers in the efforts to collect dues find a great handicap in places where there are one or two members of the I. W. W. They are even worse than scabs, for scabs will, as a rule, keep their mouths shut. An I. W. W. never will. I hope it may be possible for this convention to take some action that may define the position we should take with the members of this organization." <sup>17</sup> The following rule was passed: "Failure or refusal upon the part of any member of the I. S. W. U. of A. to cease membership in the Industrial Workers of the World can only be construed as violation of the laws of this union and must be followed by revocation of his card in the International Shingle Weavers' Union of America." <sup>18</sup>

The eight hour day as an ideal to be worked for has been emphasized thruout the development of the shingle weavers' union. Back in 1906 the slogan read: "Eight hours and day's work." But on account of various circumstances the ten-hour day prevailed. In 1917 the conditions seemed advantageous for securing a reduction of hours. The Everett strike had passed into history, war work was creating a demand for labor, and the shingle industry was recovering from the long depression. Accordingly, the regular convention and a special convention in 1917 declared for the adoption of the eight-hour day with wages in accordance with a revised scale. Along with this request, recognition of the union and the hiring of men not secured in the immediate vicinity of the mill thru the International Employment Office located in Seattle was asked for. The reasons given for this action were substantially as follows:

1. The eight-hour day is now quite generally observed and applied in all specialized industries.

2. The shingle weavers now do in practically all cases 50 per cent more work and in some cases 100 per cent more in each day than was done with the same machinery and with usually better timber twenty years ago.

3. The industry is now in a prosperous condition and the introduction of the eight-hour day would in no wise be burdensome to the employers.

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17. Proceedings, 1917, pp. 10, 17.

18. Proceedings, 1917, p. 75.

4. It is more than likely that as many hours each year could be worked on an eight-hour day basis as on a ten. In fact it is more than probable that the eight-hour day would exert a stabilizing influence on the whole industry.

5. To these economic arguments must be added the bad effects on the health of the worker of the long hours in the poisonous cedar dust.

A number of mills went on the eight-hour basis and other mills gradually followed suit and the eight-hour day was finally attained. The movement also spread into other branches of the lumber industry and involved larger issues growing out of the need of war products by the Federal government a consideration of which would lead too far afield for the purposes of this study.<sup>19</sup>

Changed industrial conditions that put a premium upon shingle weavers and made the ruling wages higher than the international union scale promoted a revival of union spirit. Several new local unions were formed and the Shingle Weavers' Union entered on an era of growth and prosperity. The same thing was true concerning the International Union of Timber Workers which had become a separate organization in 1916. The feeling grew that these two international unions should be amalgamated and thus form one union with undivided strength. Accordingly a joint convention of the two unions was held in March, 1918, and an amalgamation was brought about. The name of Timber Workers was taken and the old 1914 constitution of the Timber Workers, with some changes, was adopted by the new organization. The belief seemed to be that "the opportunity for better understanding of needs of the men in the mills and camps will be augmented by the closer relationship which will come as a result of this amalgamation."<sup>20</sup> The International Shingle Weavers' Union of America thus ceased to exist as a separate union but its aims and policies outlined in this study persist in the larger organization of the International Union of Timber Workers.

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19. Proceedings of Special Convention, 1917, and Circular Letter.

20. Proceedings of Joint Convention, 1918, pp. 3-6.



# Dante and his Divine Comedy

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Dante's Divine Comedy occupies a prominent place in that collection of literary masterpieces which "everybody praises and nobody reads." It is not necessary to seek an explanation of the too oft-repeated praises, yet possibly a reason for the non-reading may not be out of place. These great masterpieces are not common reading matter. There is no reason for disguising the fact. Perhaps they are not expected to be common reading matter. That would be asking too much, for to read such a work with enjoyment and profit, one must appreciate the fundamental ideas and ideals of the people of the period represented. To do that he must be acquainted with their environment, both material and spiritual, and with their means and manner of reaction. He must know their history, their philosophy, and their religion. And with such great world-utterances as the poems of Homer, and Dante, and Milton, that involves so much that perhaps it is not surprising that readers are few. But these masterpieces are worthy the closer and deeper study, and thru such study they can be interpreted and thus their message given the wider hearing. They can be made even readable, enjoyably and profitably so, to intelligent people not technically prepared. It is with that thought in mind that I approach the poem under discussion. It is with a hope that I may serve as guide into and thru a country abounding, it is true, in rugged mountains and snow-capt peaks, with foaming torrents and gigantic waterfalls, and with deep chasms and precipitous heights, but withal a country of marvelous beauty and deep soul-content.

Before entering into any discussion of the Divine Comedy, before even beginning to clear the ground for such discussion, let me state very briefly and very simply who the writer was and what the poem is. Dante lived from 1265 to 1321 A. D. He was a deeply religious man. He had meditated long and seriously upon the life beyond. He thought he saw the deep significance of this life as a preparation for that—one's condition and happiness there being the direct consequence of the life lived here. Grieving for the sins of mankind because he saw the inevitable outcome in the next world, and earnestly desiring man's redemption, he gave himself to their cause. At about the age of thirty-five, in his imagination, or in a

dream, or vision granted, he was given an opportunity to visit the other world. Conducted by competent guides—none other than the great poet, Virgil, and Dante's own long-lost lady-love, Beatrice—he passed thru its three departments, Hell, Purgatory, and Paradise. He conversed freely with their inhabitants and on his return described what he saw, hoping that it might turn his erring brothers from the evils of their ways. This is a bare outline of the poem. Let me briefly enlarge.

In the first department visited, called *Inferno*, or Hell, Dante saw the shades of those who, in this world, had lived so wickedly as to merit, according to the theological thought of the time, eternal punishment. He saw them suffering this punishment, some in a lake of "boiling pitch", others in a frozen, glassy lake of "thick ribbed ice". And the picture painted beggars description. It is horrible! horrible! Who can read the description, thought he, and not shun the place! In the second department, called Purgatory, were seen the shadows of those who, tho having sinned grievously, had, before death, repented of their sins and who now, thru penance and intercessory prayers, were being prepared for entrance into Paradise. And now comes the climax of the whole. In the glorious realm of Paradise, basking in the beatific vision of Him who is light, Dante saw and conversed with the great and good of former ages—with virgins, saints, patriarchs, and apostles. He saw Adam and Solomon. He answered questions asked by Peter, James, and John, and others touching conditions upon the earth he had so recently left. He reveled in peace, purity, and happiness. And the picture is skilfully painted. Again, who can read and not seek!

The we have, in the above, the approximate date, it will be necessary, for an appreciation of the work, to get the historic background. We must go back to the Greek and Roman periods of which the Middle Age is the direct descendent and heir. Starting from the time of Dante, in order to find Virgil we shall have to retrace our footsteps thru thirteen long centuries. And if we wish to find the Greek poets also we shall have to go back a full four hundred years farther. Many more than the "ten silent centuries" have passed. Indeed it is a "middle" age as well as a "dark" one.

The Greek poets wrote of Greece, painted with master-hands the development of Greek genius and Greek glory. They portrayed the ripest fruits of culture and art and pictured the hopes and aspirations of a talented people. The Mantuan sang the song of Roman power, of the Rome that actually "sat on her seven hills and from her throne of beauty ruled the world". The deep, innermost

thoughts of these two people, marvelously gifted but each in its own way, are known to all. In one we see as ideals sought, won, and lost again—harmony, beauty, and truth: in the other, sought and won but not yet lost—might, ruling power, world-wide dominion. Again and again has the artistic, esthetic, ethic Greek been placed before us for our admiration. The stern, not over-scrupulous, war-like Roman has stood in our presence in all his military greatness. Fit subjects both for the brush of the painter and the pen of the poet. How could gifted artists fail to produce great works of art when dealing with such subjects!

But classic Greece and Augustine Rome have long since passed away. Where can another land and another people be found so worthy the artist's stroke? Possibly not at all. Certain it is that we nowhere find a duplicate of either. But tho governments rise and fall, tho civilizations wax and wane, God's great work with man moves steadily on. The face of the earth continues covered with His people working out, in different ways, the great problems of life. And tho the Greek has done his work and the Roman is no more, the great problems of life are not yet solved. Each succeeding generation deals with them from its own point of view and passes them on to the next. Some are serious in their efforts, some are not. Some make real contributions, others but record the struggle.

When Euripides produced the "Medea" the Greek world had already passed its meridian. Indeed, one purpose of the great dramatist was to check its downward career. But it was a vain effort even tho the poet was assisted by statesman and philosopher. Greece fell to rise no more.

Virgil wrote when the Roman Eagle was soaring in the clear blue of the upper sky, when world-wide dominion was not a fond dream but a proud reality. This, however, could not last. Already the seeds of dissolution and corruption had been sown and even then were springing up into an unwelcome harvest. It was not long in maturing. Upon the throne, in the Senate Chamber, and on the battle field, personal greed and individual ambition were sapping the strength of the mightiest power that had ever ruled. Effeminacy, corruption, and debauchery were actively aiding these more external foes, and this power was soon brought to a condition in which it was easily overthrown by a new power from the North.

Already in the days of Virgil the Northern danger had appeared. The barbaric hordes had begun to cast voluptuous eyes on the fair possessions below them, but as long as integrity and honor and courage remained within the Roman breast this danger had been averted. On



losing these qualities there was no force to withstand the onslaught. For, tho rude and crude, tho savage and destructive, these Northern people somehow possess a force and a vitality and a virtue that were in the end irresistible. Wave after wave of Vandal and Hun swept over the plains and thru the towns seemingly seeking but to blot out every vestige of former civilization. Rome fell and was no more. But tho Rome fell, there was a power within her, mightier than she, mightier than even her rude conqueror, that did not fall—even the Christian church.

Long before the time of Dante this power, that is, the Christian church, had become so thoroly organized and so widely extended that, leaving its own sphere and entering that of another, it could cope with a powerful and growing empire. But it was not so much the gaining or the using of temporal power in itself on the part of the church and its leaders that was objectionable, rather, the fact that this was not the church's true function, and that this function was necessarily, because of this very process, mesurably neglected. The true function of the church was spiritual. "My Kingdom is not of this world", Christ had said. And yet the church, founded upon His teachings, and led by men pretending to be His representatives, was being made in very deed a Kingdom of this world!

Now, Dante did not believe in the exercise of temporal power by the church. He makes very clear in his "De Monarchia" his view of the relative position of Pope and Emperor. The two are separate and independent powers co-ordinate with one another and not subordinate either one to the other. Each had received its authority directly from God, and they should act in a supplementary, not an antagonistic, manner. Long before his day, however, they had become rivals and in their rivalry had brought about their own inefficiency and the world's woe. And Dante feels that the church had most greatly erred. I can not do better than ask him to speak for himself. On the third terrace of Purgatory he puts into the mouth of Marco Lambardo the following:<sup>1</sup>

"— — — — Laws indeed there are:  
But who is he observes them? None; not he,  
Who goes before, the shepherd of the flock,  
Who chews the cud but does not cleave the hoof.  
Therefore the multitude, who see their guide  
Strike at the very good they covet most,  
Feed there and look no further. Thus the cause  
Is not corrupted nature in yourselves,

1. This quotation from the *Divine Comedy*, as all others, is from the translation of Rev. H. F. Cary (1814), and published by Belford, Clarke, and Company, New York.

But ill-conducting that hath turn'd the world  
 To evil. Rome that turned unto good,  
 Was wont to boast two suns, whose several beams  
 Cast light on either way, the world's and God's.  
 One since hath quench'd the other; and the sword  
 Is grafted on the crook; and so conjoin'd  
 Each must perforce decline to worse, unaw'd  
 By fear of other."<sup>2</sup>

Again, he says,

“.....my rule  
 Mixing two governments that ill assort,  
 Hath miss'd her footing, fall'n into the mire,  
 And there herself and burden much defil'd.”<sup>3</sup>

The results of true Christian activity are shown, primarily, in the character of life being lived. They manifest themselves in the fruits of the spirit—“love, joy, peace, longsuffering, gentleness, goodness, faith, meekness, temperance”—never, save indirectly, in worldly possessions or in temporal power. But, engaged in the accumulation of these latter the church leaders had failed in obtaining the former, and we find the centers of church life and activity to be hotbeds of corruption and vice which true men of all parties and creeds denounced. Dante's view of conditions in his day can not be better stated than in his own words. In the seventh heaven of *Paradise* he meets St. Benedict, the founder of the most eminent of European Monastic orders—the Benedictines. In conversation the latter says of the then present condition of the Order:

“.....My rule  
 Is left a profitless stain upon the leaves;  
 The walls, for abbey rear'd, turned into dens,  
 The cowls to sacks choak'd up with musty meal,  
 Foul usury doth not more lift itself  
 Against God's pleasure, than that fruit which makes  
 The hearts of monks so wanton: for whate'er  
 Is in the church's keeping, all pertains.  
 To such as sue for heav'n's sweet sake, and not  
 To those who in respect of kindred claim,  
 Or on more vile allowance. Mortal flesh  
 Is grown so dainty, good beginnings last not  
 From the oak's birth, unto the acorn's setting.  
 His convent Peter founded without gold  
 Or silver; I with pray'rs and fasting mine;  
 And Francis his in meek humility.  
 And if thou note the point, whence each proceeds,  
 Then look what it hath err'd to, thou shalt find  
 The white grown murky.”<sup>4</sup>

2. *Purgatory*, Canto XVI, lines 100-115.

3. *Purgatory* XVI: 129-132.

4. *Paradise*, XXII: 73-91.

Dante felt that wealth and secular power, dating from Constantine's supposed gift, had proved a curse to the church and its leaders. This is well brought out in his remarks to Pope Nicholas III, whom he finds very low down in the *Inferno* as he and his guide pass thru those regions. Pope Nicholas is suspended head downward, his feet only appearing from above. On the soles of these the ruddy flames are forever playing causing fiercest agony. Nicholas awaits and expects to join him there in like position and occupation two other Popes of unsavory reputation—Boniface VIII. and Clement V. Addressing Nicholas, Dante says:

“.....Tell me now,  
What treasures from St. Peter at the first  
Our Lord demanded, when he put the keys  
Into his charge? Surely he ask'd no more  
But, 'Follow me!' Now Peter or the rest  
Or gold or silver of Matthias took,  
When lots were cast upon the forfeit place  
Of the condemned soul. Abide thou then;  
Thy punishment of right is merited:  
And look thou well to that ill-gotten coin,  
Which against Charles thy hardihood inspir'd.  
If reverence of the keys restrain'd me not,  
Which thou in happier times didst hold, I yet  
Severer speech might use. Your avarice  
O'ercast the world with mourning, under foot  
Treading the good, and raising bad men up.”<sup>5</sup>

“Ah, Constantine! to how much ill gave birth,  
Not thy conversion, but that plenteous dower,  
Which the first wealthy Father gain'd from thee.”<sup>6</sup>

But what were the beliefs of the church? her doctrines? her theological creed? How did she look upon this life? how upon the other? What were the relations of the one to the other?

The happy old Greek was pretty well satisfied with this world, nor cared to take much anxious thought about another. True, he may have expected to live on, he did not doubt the existence of another world. But he did not look upon the present as essentially a preparation for that. But with the decline of Greek thought and the introduction of the Hebraic idea into the Western world a change began to take place. One of the fundamental principles of this new religion, Christianity, was found in the emphasis on the value of the world to come. Attention was directed from this world to that, nor did the disciples think they should have long to wait before being translated. More and more as Christianity spread did this thought

5. *Inferno*, XIX: 93-108.

6. *Inferno*, XIX: 118-120.



engage men's minds. Other forces accelerated its dissemination and supplemented its influence.

These were troublous times. The war spirit with all the attendant sufferings and horrors of a barbaric age was in the air. This world could offer no hope of peace and rest and happiness and security such as the disciples of Christianity freely and generously offered for the next. Again, the effect produced on the Teutons by coming into contact with this new religious force pointed in the same general direction. The Teutonic mind was essentially earnest and conscientious, and, withal, deeply superstitious. And their first grasping of Christian principles as then taught filled them with such remorse for their past lives and with such fear for the future if lived here that they were ready to fall down and cry, "What must I do to be saved?" And once saved they wanted to stay saved. Once more, Christianity, full of joy in its new life, abounding in hope and ambitious for victory over all the forces of darkness prest eagerly forward to seize her prize. But "the mills of God grind slowly." Accomplishment lagged far, far behind expectation, and disappointment took refuge in a recoil that boded ill.

As a natural result of all these and other influences Medieval man came to feel that the present world was not his home. He looked upon himself as a sojourner and a wanderer. His citizenship was in Heaven, not on earth. He was a pilgrim passing thru a strange and weary land whose only purpose was to serve as a preparation for that to come. The old religions had emphasized this life. Medieval religion placed the stress upon the other. The two were separated by a gulf that could not be filled, hardly bridged. The outcome of such a view was a withdrawal from participation in the active affairs of life, resulting in the great Monastic movement whereby "the world, the flesh and the devil" were thought to be shut out from view so that man, alone with God, could face and solve the problem of his future.

But not quite alone—it might have been better so. The church was ever present and all-powerful. Indeed, had not the church received, direct from the hand of God, the "keys of heaven and hell"? and was it not her chief function to open the gates of a better world for all true believers? And true believers, you know, were simply those who accepted the dogmas of the church. These dogmas represented *the truth*. It had been found and caged, therefore no need longer to search for it. There was then, of course, no room for philosophic thought save that kind sanctioned by St. Thomas Aquinas who held that the only legitimate philosophy "takes revelation for

its starting point and returns to it as its final goal." Faith precedes all reflection and all religious discussion. St. Anselm's *credo ut intellegam* (I believe in order that I may understand) is the keynote of all thought. But you see that faith was not merely the starting point, it was also the fixt goal of thought and hemmed it in all along the way. It was indeed "the beginning, the middle, and the end" of all philosophy.

No matter how full of error the church was, no matter how corrupt her leaders, there could be absolutely no salvation outside. Indeed she held the keys. But salvation the people must have. They could not get along without it. At any cost, at a sacrifice of body, mind, or soul, purse or character, the current article must be obtained. Note the church's *power* over the lives of men. Remember also that many of the church's leaders Dante saw in some of the lowest rounds of Hell.

Now Dante accepted and emphasized this Medieval view of life and the relation of the two worlds. He did not, of course, sanction evil. But he looked on this life as essentially a preparation for another "whose awful reality," he felt, "overshadows it, and reduces its interests almost into an object of contempt." How consistently could he say:

" . . . . . O poor and wretched ones!  
That feeble in the mind's eye, lean your trust  
Upon unstaïd perverseness! Know ye not  
That we are worms, yet made at last to form  
The winged insect, imp'd with angel plumes  
That to Heaven's justice unobstructed soars?"<sup>7</sup>

The smallness and meanness of earth and earthly things he pictures as, looking down from the heights of Paradise, he says,—

" . . . . . this globe  
So pitiful of semblance, that perforce  
It moved my smiles: and him in truth I hold  
For wisest, who esteems it least: whose thoughts  
Elsewhere are fix'd, him worthiest call and best."<sup>8</sup>

It is sometimes said that Dante was revolutionary, the herald of new and better things, the first of modern as the last of medieval writers. But the erroneousness of this view is not difficult to see. He believed, heart and soul, in medieval orthodoxy and in no sense sought or desired to sound its death knell. But in spite of his desire not to do it he may have been largely instrumental in bringing it about. We moderns say that the best way to bring about the re-

7. Purgatory X: 110-115.

8. Paradise XXII: 130-134.

peal of a bad law is to insist upon its strict enforcement. Now Dante believed in these old ideas, he graspt them so fully and exprest them so honestly that they stood out in all their nakedness. To quote from Caird: "Dante held up to Medieval Catholicism its own ideal, the very principle upon which it rested and from which it drew all its power, he judged it by that ideal and by that ideal he found it wanting."

Were we to attempt an analysis of the church in medieval times we should find at least four classes, or parties. In the first place, standing out prominently as leaders are seen the professional, official, I might almost say political, churchmen—those who had to do with the machinery of the church, who manipulated affairs. These men knew nothing about the underlying principles of Christianity for which the church was supposed to stand but, fat and sleek, with the church for what there was in it for them of profit and power, they accepted its dogmas from beginning to end and were well verst in all their dialectical subtleties. A second element is seen in those who, having once honestly believed and accepted the church theology, had found the world too much for them and had withdrawn to the retirement of the cloister and the cell. Here, yielding to the very seductions from which they had vainly hoped to escape, many of them became corrupt and in secret lived lives of indulgence and dissipation, tho never forgetting to vaunt aloud their theological beliefs, thinking that somehow, no matter what their lives, their salvation was assured by their church connection.

The third class—smaller, less noisy, more sincere—is made up of those who treasured up in good and honest hearts true religious principles, whose lives had really been touched by divine grace, who really believed in the doctrines of the church. They not only believed with all their hearts in the mission and efficacy of the church, but they also recognized, all too clearly, the wretched condition into which, thru its false leaders, it had fallen. There was also another class, larger than any or all others, made up of the great mass of people, who, without examination, without question, accepted the church and acknowledged its final authority in all things spiritual.

But who was Dante and what his life that made it possible for him to be spokesman of such an age? The external facts of his life are told in few and uninteresting words. Of a noble family probably of Roman descent, he was born and reared in Florence. His dates are 1265 and 1321. Under private instruction he received the best educational advantages of his time, and was a life-long student of ability and great industry. A citizen of a city-republic, unusually intel-



ligent, and self-sacrificing to a fault, he very naturally took a hand in politics—his voice being ever raised to check feuds and to secure peace and prosperity. Elected to the Priorate in 1300 he, with others, became involved in a Guelph-Ghibelline controversy. Two years later, thru this, he suffered the confiscation of his property and his own banishment. From that time on to the day of his death in a foreign city he was a wanderer on the face of the earth, with two great abiding longings in his heart: first, that he might be able to complete his message of hope to a world well-nigh lost—his *Divine Comedy*—and, second, that he might be permitted to die in the city of his birth and of his unfailing love.

The above is brief. It might even have been briefer. It might have sufficed to say with Farrar—"the outlines of his life may be summed up under the four words, 'Love', 'Philosophy', 'Politics', 'Exile'."

But these statements do not give us his life—only a few hints here and there helping us to interpret aright its sad, true story as found in the great work he left. For unlike any other epic ever written the *Divine Comedy* shows us first, last, and all the time, the writer. Here is to be found the man—the man of flesh and blood and spirit, the man of love and hate and action. Here we find as nowhere else his loyalty to truth, honor, and righteousness; here as nowhere else his hatred of sham, hypocrisy, and vice.

At the age of nine he meets Beatrice, a child of eight, which meeting, with the effects that came from it, put into his life, in large measure, the factor that made it what it became. We are wont to smile when the attachment of children of these ages is called "love", but the careless smile dies on the lip when we apply it to the love of Dante and Beatrice. No childish affection that, but a passion pure, deep, strong, and abiding. Later in life, Dante, in his "*Vita Nuova*", that "expression of the ardent and impassioned emotions of his youth", looking back upon this chance meeting and thinking of its influence upon him, said: "I say that from this time forth Love lorded it over my soul, which had been so speedily wedded to him; and he began to exercise over me such control and such lordship, through the power which my imagination gave to him, that it behooved me to do all his pleasure. . . . And though her image, which stayed constantly with me, gave assurance to Love to hold lordship over me, yet it was of such noble virtue that it never suffered Love to rule me without the faithful counsel of the reason in those matters in which it were useful to hear such counsel." The children were not intimate friends, seeing each other only occasionally. The sec-

ond recorded meeting of the two came nine years later. And this meeting it was that "kindled the fires of poetry in Dante's soul". Of her, at this time, he later said: "...it happened that this wonderful lady appeared to me, clothed in purest white, between two gentle ladies who were of greater age; and passing along a street, turned her eyes toward that place where I stood very timidly; and by her ineffable courtesy, which is to-day recorded in the eternal world, saluted me with such virtue that it seemed to me then that I saw all the bounds of bliss". . . . And, "as it were, intoxicated, I turned away from the folk; and betaking myself to the solitude of my own chamber, I sat down to think of this most courteous lady." Nor yet in adult life was the relationship closer—each married another; Dante, however, not until her death. But in Beatrice Dante saw such a personification of purity and truth, such an ideal perfection of character and worth, that he involuntarily gave her his unstinted admiration and worshipful devotion. He was seemingly satisfied to gaze and worship, nor aspired to closer touch. He saw that it was possible for purity and truth and perfection to be embodied in human form.

But Beatrice died, died young, at twenty-four, and Dante, a man of twenty-five, was stricken down. Beatrice was the wife of another? No matter. Their relations had ever been of the purest and holiest. He had caught a glimpse of her soul and by it had been held in thrall. When this was recalled to its Maker, Dante was left without a guiding star and, like the mariner thus bereft, drifted aimlessly. For an entire year he mourned, sad and disconsolate. He thought it strange that all did not mourn, even that Florence could busy herself in her usual activities when her sun had set. But thru a vision vouchsafed to him he saw that Beatrice was not dead—that she had simply gone before. He now determined to cease his mourning and so apply himself to study and reflection, that he could, as he says in his "*Vita Nuova*," "write concerning her what hath not before been written of any woman". And thus he hoped to fulfill both his own and her mission in life.

And now, restored to his normal state, his old worship of Beatrice as a living woman passes into a worship of her as the symbol of theology and religion. In spite of the practises of Pope and priest, in spite of the lives lived by monk and nun, in spite of corruption and crime—cess-pools of vice and dens of wickedness—all under the name and patronage of the church; in spite, I say, of all this, Dante saw, thru Beatrice, that theology was pure and spotless, that God was just, and that the church could be strong and helpful

and a saving power unto the souls of men. His star, Beatrice, causes him to raise his eyes from the sordid and perishing things of earth, and view the spotless and eternal thing of heaven; to pierce thru the foul and murky atmosphere of things present to the possible clear blue of things to come. She makes possible for him the journey thru the lower regions and is herself his guide up the beautiful Mount of Paradise.

But one other life-fact, namely, his banishment and exile, needs to be more fully treated that we may come to see Dante as he was when he approached this the great work of his life—that we may see more clearly his soul-picture telling us how he looked forth upon the world of men and things and therefore why he spake as he did. For if ever man spake from the depths of his heart and from the innermost meaning of his life, that man was Dante.

To make any reference to that unhappy event clear, however, it will be necessary to call to mind the old and bitter struggle between church and state, also the deadly animosities, prolonged feuds, and violent eruptions of Guelfs and Ghibellines, two notorious organizations brought into being in connection with this struggle. But tho owing their origin to church and state, they by no means restricted themselves in their activities to these larger bodies. Individual hatred, personal injuries, and family feuds, were ofttimes sufficient to call into bitter and deadly strife these two parties. Party lines were seldom drawn hard and fast, and local prejudice or community jealousy had much to do in drawing up forces. Faction against faction, interest against interest, town against town, the fierce and bloody strife went on resulting at times in blotting out family or city and in rendering for all time to come the lives of their people wretched and miserable. Dante in his banishment and exile was an illogical, unfortunate, and innocent victim of one of these sanguinary struggles.

A Florentine, no one loved his city more—shown by many self-sacrificing efforts on her behalf culminating in valiant service on her fields of battle. No one was more trusted and honored by his home city; 'tis said that he took part in no less than fourteen embassies on her behalf, and at the age of thirty-five was made her chief magistrate. Boccaccio says of him that, at this time, "no legation was heard or answered, nor, in short, was any deliberation of weight entered upon, until Dante had first given his opinion relative thereto." But a Gueff-Ghibelline controversy arose—one of these miserable family feuds, a quarrel that in no sense of the word touched Dante either personally or politically. But it spread like a deadly con-



tageous disease until its poison had infected the entire civic life, rendering action on the part of the rulers absolutely necessary. With earnestness and unselfish sincerity Dante, as chief magistrate, gave himself to the task of righting matters. A solution was reached based upon justice and righteousness so far as possible in those unhappy times. The solution involved the banishment of the leaders of both parties to the controversy. Dante's unselfish patriotism and his strict loyalty to justice are seen in the fact that among those banished were Guido Cavalcanti, his "first friend", and a poet friend at that, and Corso Donati, a distinguished man and highly esteemed and, withal, the head of the influential house to which his wife Gemma belonged. But the settlement aroused enemies (was it ever known to fail?) and a little later, hurrying home from an embassy to Rome, Dante found that his enemies had triumphed and that his friends had been driven from Florence. He found his own house pillaged and in ashes, his property confiscated, and himself charged with fraud, corruption in office, and embezzlement. A heavy fine and a sentence of banishment were passed against him and he was forbidden ever again to set foot in Florence on pain of being burned alive. With extreme difficulty some of his friends finally succeeded in getting a small portion of his property returned for the support of his wife and their four young children. They had to remain.

This was in 1302, and from that time on he had no earthly home. He wandered here and there as chance offered or necessity compelled. As he says, "Alas, I have gone about like a mendicant, showing against my will the wounds with which fortune has smitten me. I have indeed been a vessel without rudder, carried to divers shores by the dry wind that springs out of poverty."

For years he hoped against hope that his city which he still loved would one day repent of her injustice and allow him to return in honor. He was, indeed, finally, given the privilege of returning but on condition of making an apology and paying the fine. Here, as in many another place, Dante reveals in his reply that love of justice and that abhorrence of deceitful compromise so characteristic of him. "The stars and the heaven are everywhere," he said in reply, "and in any region under heaven I can ponder the sweetest truths. If I cannot return without calling myself guilty, I will never return.."

But the life of exile was bitter and hard for his proud and lofty spirit, even tho he knew that he was innocent and even tho nobody believed the foolish charges that were made against him. Canon Farrar uses, in connection with this exile, a sentence well worth quoting: "What the cage is to the mountain eagle, that was to Dante

the dangling as a dependent about the courts of little men." Never again did he set foot in Florence. Ravenna was his city of death, and there his remains were laid to rest under this inscription: "*Hic claudor Dantes patriis extorris ab oris*"—(Here am I Dante laid, a shut-out from my native shores). And there they have remained even tho, a century later, Florence begged their return.

For twenty years Dante was a lonely wanderer, a bitter exile with no home and with no one to love him. Denied solace and hope and love in this world, it was most natural that he should turn his thoughts to the world beyond. Upon this he brooded and it became for him the one great reality. From his present view point and out of the bitter experiences of his past, he looked forth to that which alone gave resting place for his eye. And as he looked such was the sight that met his gaze that his impassioned soul, still yearning for erring man, felt compelled to paint its picture and hang it where all might see. This painting is the "Divine Comedy." The picture is made up of three distinct parts to which the inspired bard gave the names "Inferno," "Purgatorio," and "Paradiso." And yet, not three pictures—one—because each part is so related to the others that only in their connection can it be adequately seen.

The poem was thus the chief fruit of his entire life and the immediate product of his exile. "Not a large fruitage," does some one say, "a single poem"? Not large, it is true, if our mesure be quantity, number of words, but ah! when we reflect that each word is freighted as are the words from few other pens, then its significance appears.

With the eye of the imagination we can easily see the lonely, sorrow-stricken man as he wanders from patron to patron, from city to city, driven by hunger or hatred or else urged on by a flickering hope of a recall to his Florentine home. We see him brooding, ever brooding, pondering, ever pondering, upon the great thoughts within, and striving, ever striving, to give them such utterance as shall fix them eternally in the minds of men and teach their lesson forevermore. Nor is it hard to conceive that the work he thus did was difficult and laborious to a supreme degree. For he produced not only a magnificent poem, a matchless work of art, but he as well shaped a new language, and gave birth to a new national literature. No wonder that he said the work had made him "lean for many years." No wonder that at its completion, when his great task was done—his great picture painted—he was exhausted and, but little past the prime of life, sank down to rest.

But what is this poem that has received from the world's best

critics such extravagant praise? what this picture painted with the heart's blood of this gifted but stricken man? Possibly too long already have we been engaged in making the approach.

I have called the poem an "epic". Is it such? That depends upon the basis of classification. If we accept the definition given by Shelly and say that an epic is a poem "that bears a defined and intelligible relation to the knowledge and sentiment and religion of the age in which it was produced and of the ages which followed it," then the *Divine Comedy* is an epic. But there are only two others—Homer's and Milton's. If, however, we accept the ordinary definition and say that an epic is "a national poem reciting the deeds of a national hero," then the one in question can not be so called. Again, if we require the writer of an epic to state his purpose in the opening verses as did Homer, and Vergil, and Milton, then the *Comedy* is not an epic. The work is not thus introduced. But perhaps the classification doesn't matter. What is the poem?

Boccaccio thought that Dante thus wrote that he might have a convenient gallows upon which to hang his political enemies. Another said it was but a huge political pamphlet thru which the writer could hurl his thunderbolts at the Guelf party. Another called it a dissection of the human soul and still another, "St. Thomas Aquinas set to music." As plausible as some of these suggestions are, they are all unsatisfactory, since narrow. But why guess at it when Dante himself is at hand to speak?

In submitting a portion of the work to his patron, Can Granda, Dante takes occasion to say: "The subject of the whole work, taken literally, is the state of souls after death regarded as a matter of fact. But if the work be taken allegorically, its subject is man, in so far as by merit or demerit in the exercise of free will he is exposed to the rewards and punishments of justice." Again, "It lays down the everlasting laws of morality, revealed no less by reason than by the word of God." "It was a vision," we hear said, "a dream," "the fruit of a disordered imagination." Ah no.. It was no mere vision. If a dream, it was dreamed with not only the eyes wide open but as well with all the senses keenly alert. It is a philosophy, *the philosophy of the Medieval World* voiced by that world's truest spokesman and giving expression to his own and his age's undying faith. In the words of another, then, let me say, "The *Divine Comedy* is therefore the epic of Man, considered as a moral being, exercising free will under the eyes of an inexorable judge, who punishes and rewards according to fixed laws."

Why is it called a "Comedy", is a question that must spring



again and again to the lips of every careful reader. Dante explained his choice of name by calling attention to its opening and closing. Its ends more pleasantly than the beginning seems to promise. In the beginning of the poem we are introduced to the horrors of Hell, but the ecstasies of Paradise hold our wrapt attention at the close. Over the door of the former is found this inscription:

"Through me you pass into the city of woe;  
Through me you pass into eternal pain:  
Through me among the people lost for aye"

— — — — —  
All hope abandon ye who enter here.<sup>9</sup>

And upon entering he hears:

".....sighs with lamentations and loud moans  
Resounded through the air pierc'd by no star,  
That e'en I wept at entering. Various tongues,  
Horrible languages, outcries of woe,  
Accents of anger, voices deep and hoarse,  
With hands together smote that swell'd the sounds,  
Made up a tumult, that forever whirls  
Round through that air with solid darkness stain'd,  
Like to the sand that in the whirlwind flies."<sup>10</sup>

Here is the attempt to describe, in the last Canto of the *Paradise*, what he saw when permitted to gaze on the Infinite:

"With fixed heed, suspense and motionless,  
Wondering, I gaz'd; and admiration still  
Was kindled, as I gaz'd. It may not be,  
That one, who looks upon that light, can turn  
To other object, willingly, his view.  
For all the good, that will may covet, there  
Is summ'd; and all, elsewhere defective found,  
Complete. My tongue shall utter now, no more  
E'en what remembrance keeps, than could the babe's  
That yet is moisten'd at his mother's breast."<sup>11</sup>

".....In that abyss  
Of radiance, clear and lofty, seem'd methought,  
Three orbs of triple hue clipt in one bound:  
And, from another, one reflected seem'd,  
As rainbow is from rainbow: and the third  
Seem'd fire, breath'd equally from both. Oh speech  
How feeble and how faint art thou, to give  
Conception birth! yet this to what I saw  
Is less than little!"<sup>12</sup>

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9. *Inferno* III: 1-3 and 9.

10. *Inferno* III: 21-29.

11. *Paradise* XXXIII: 93-102.

12. *Paradise* XXXIII: 107-115.

Dante did not apply the adjective "Divine" to his poem—that was added later because it dealt with divine things. Why did he call it an allegory? Simply because he looked upon his work as something more than a mere description. It was the description, first and foremost, and—something more. What more? And how much more? Those questions open up a great field which, tho fascinatingly interesting, can be merely touched upon here, namely, the underlying principles of medieval theology. Some suggest that the allegorical meaning was the principal one, Caird going so far as to say, "We might be tempted to regard Dante's representation of the other world as a mere artistic form under which the universal meaning of our present life is conveyed." But can we be true to Dante and true to his age in such a view?

In Medieval thought was there a hell with its lake of boiling pitch, its river of blood, and its flames so hot "that iron for no craft there hotter needs"? a *place* of punishment? To these people was purgatory a reality? Was there a "Mountain of Purification?" a *place* for repentent sinners? still an opportunity for those who had greatly erred and a chance for the living to help? Was the oft-repeated request, "Pray for me," made by the dwellers of Purgatory to the visiting poets, likely to touch a responsive chord in the hearts of readers of his day? Did the bard's countrymen believe in Heaven—a *place* of beauty and light and glory? Did they hope some time to meet around the great white throne and mingle with angels in songs of praise and adoration of the "Three orbs of triple hue clipt in one bound?"

Did they believe in these are realities? or were "hell," "purgatory," "paradise" simply names of states of feeling in the minds of individual man? Ah! the latter can't suffice. The places were there. Dante saw them with as clear an eye as ever mesured mountain peak. He felt their presence as keenly as ever he did the world of his own banishment. Can we suppose for a moment that Dante would have been satisfied to send arch-heretics to an abstract hell? No. He had to place them within red-hot iron vaults and then leave the door ajar so that all might hear the "lamentable moans, such as the sad and tortured well might raise."

Could one by remorse adequately atone for wrongs done and thus receive the cleansing necessary for an inhabitant of the region of light? Not for a Dante, or for any other typical medieval man would such expiation suffice. Rather let the sinning one be clothed in "sackcloth vile" and have his eyes sewed up with "a thread of wire." Or could the glorified Beatrice be adequately enshrined with-

in a memory? Impossible. For Dante she lived and must have a habitation. And such a one did he give her as beggars the power of other pen to describe.

And why not realities? Did not the Medieval Age thus regard the other world? Is not Mr. Caird right in his contrast of the Homeric and the Medieval Ages?—"The Homeric Age was characterized by its fresh sense of the reality of life and its interests. Therefore the world of the dead could be brought in only as a shadowy and spectral existence at the extreme verge of his picture of the living world. But to the highest consciousness of the Middle Age it might almost be said that the parts were inverted and that the world of the living was but a shadowy appearance through which the external realities of another world were continually betraying themselves."

True, Dante was trying to do more than simply to describe—his work was not simply an intellectual act with no moral end in view. He makes very clear his purpose. He writes *Can Granda*: "The object of the work is to make those who live in this life leave their state of misery and to lead them to a state of happiness." Again, in the closing Canto of the *Paradise*, eagerly desirous of adequately describing the "Divine Essence" upon which he is permitted to gaze, and recognizing fully the extreme difficulty of the task, he prays:

".....O eternal beam!

(Whose height what reach of mortal thought may soar?)

Yield me again some little particle

Of what thou then appearedst, give my tongue

Power, but to leave one sparkle of thy glory,

Unto the race to come, that shall not lose

Thy triumph wholly, if thou waken ought

Of memory in me, and endure to hear

The record sound in this unequal strain."<sup>13</sup>

".....Oh speech

How feeble and how faint art thou, to give

Conception birth!"<sup>14</sup>

Just how much of Dante's meaning is wrapt up in the allegory, just to what degree he would have us regard the poem as typical of this life, nobody knows. My own impression is that, from first to last, his eye was fixt upon the other world, and not upon this, and that for the beneficent results he hoped to accomplish thru his writing he relied upon the mental pictures he was painting—upon their power to warn, encourage, and invite. Now, he may have thought, doubt-

13. *Paradise*, XXXIII: 63-71.

14. *Paradise*, XXXIII: 112-114.



less he did, that there was an analogy between the hell he was painting and the hell in which men around him were living. But I fancy that he could have dispensed with the latter much more easily than with the former.

Still, the modern theologian as well as the moralist can find in the allegorical aspect of the poem alone an abundance of material for any present or prospective emergency. Nor is it strange that a genius like Dante in presenting, from his own single view point, a work of art on such a world theme as this should, perhaps unconsciously, put forth a many-sided product capable of fitting into and being used by many generations of people yet unborn and differing widely from the one for whom it was originally produced. Is not this, indeed, one mark of genius? Who supposes for a moment that Milton or Shakespeare or Goethe ever dreamed of one-half the meanings read into their productions?

And what shall be said in conclusion? Merely enough to place in proper perspective that which has already been said. While this essay is the fruitage of much study and reflection, it does not pretend to be an adequate presentation either of the man or of his work. It is merely an introduction—an effort to interpret the life of a great man and that man's great masterpiece. No application has been made of either to present-day conditions or needs, tho opportunities abound. Dante touched human life at too many points, his great poem reflected world movements too many in number and too varied in character to be summed at a single sitting. The writer hopes, however, that enough has been said to arouse some slight interest in this great historical figure and to invite a closer acquaintance. While Dante was very human, a man of strong feelings—even of deep emotions—, while he was easily touched by the infirmities of others, while he had his weaknesses, he was *par excellence* a man of gigantic intellect, of inexorable will, and of the strictest justice. He saw and saw clearly. He decided and decided wisely. He acted and acted strongly. In it all he had but one great end in view—justice between man and man and peace between man and God. The writer knows of no poem, no essay—no literary expression—that will more fully repay earnest, thoughtful study. Especially is this true if one wishes to know how an intelligent, clear-headed, pure-hearted, unselfish, God-fearing man should react to the complex, everchanging, criss-cross life of our present day. The student of Dante will gain fresh insight into the motives of men, greater knowledge of the purposes of God, stronger desire to measure up to the fullest, and added courage to face the issues of life.

# The Academic Mushroom

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No one in touch with contemporary drama and dramatic critique needs reiteration of the fact that the course in Dramatic Composition has suddenly invaded the catalog of many a college and university of the land, and stands engagingly among the electives, where it is the stimulus of numerous and varying opinions of its right to continue there. On the one hand is feverish apotheosis, from those avid watchers and toilers, academic and otherwise, for the American Shakespeare, who daily don their bright white robes lest they be not among the chosen on that blessed morning when the Master shall appear—an advent slated to take place in the Middle West. On the other hand lie the fervid intimation that students at college are supposed to improve their time and themselves, and the purblind contention that the writing of plays should be left to those who can do it!

Between these two risible extremes of superheated logic fall all other opinions, involving the whole gamut of human regard: mistrust, indifference, condescension, benignity, faith, hope, sympathy. The gifted devisers of America's present wealth of "bed-room drama" and its kin, if they know there are such courses, are not seen to pay them any appreciable attention. This is hardly to be wondered at when one considers to what lengths these artists must be put to wring a few more drops of sensation from their long since juiceless pabulum. The authors of such American drama as America is not apologetic for the morning after, recognizing such courses truly enough, probably regard them as fundamentally harmless, a kind of college soporific. The youngsters had much better be dabbling in plays, perhaps, than hanging crape on the professors' doors or painting numerals on the president's cow. Still another group, the critics, watch for tangible results, but when they see one they are, at the present stage of the game, not sure whether it illustrates a rule or an exception to it. And finally there are those who teach such courses, all favorable, but each with his own private opinion tinted by his peculiar theories and intentions. Occasionally critic or teacher codifies the results of his observation and experience and publishes a text on play-writing, in the preface to which he usually declares for or against Dramatic Composition as a course for undergraduates.

The author of the text now used at North Dakota, for instance, "views with some alarm the recent mushroom growth of such courses throughout the country." But, as is not at all unusual, we find cheer in his chapters rather than in his preface.

This epithet, "mushroom," indeed, is the one most commonly applied to the crop of college courses in Dramatic Composition. Many users of the term doubtless think primarily of the suddenness of the growth; more, I am sure, have in mind a purely emotional contrast between the lowly mushroom and the mighty oak, and the quality of evanescence. But whether the analogy makes or breaks, I recall a more suggestive condition contingent on the presence and growth of mushrooms: their lifted heads almost invariably indicate the presence also of organic matter in an advanced state of decay. If anyone is in doubt as to what occupies a like state beneath this mushroom growth of courses, let him attend the theater, with Mr. Hornblow or in person, not going once or twice a year when "something good" comes, but regularly, and with moral, esthetic, and intellectual scales conscientiously adjusted.

That the presence in a College of Liberal Arts, of a course in Dramatic Composition, even with its possible tendency toward impracticality from a commercial point of view, is not a mistake and a presumption, and that the admission, with certain prerequisites, of seniors and juniors, and in rare instances even sophomores, as well as graduates and special students, is not an injustice to the student and a hindrance to dramatic art, is the dual thesis of this essay. Such a course, if fully used, is far from being a gilded place of wasted effort, or a neutral collegiate pastime. It is a course in special composition, a laboratory course which by the very nature of the form being studied, challenges the student to reading and reflection if anything nowadays can. Finding a story and attempting to devise it for presentation on the stage, besides impressing on him certain facts of technic and such information as he acquires in finding his story and giving it atmosphere, swings into operation all he knows about men and women, and about life. He usually knows comparatively little about life; but it is unfortunate to say he knows nothing about it, or that he cannot feel seriously in regard to it.

The course I have in mind is one having as its chief purpose not the immediate fashioning of playwrights, any more than the course in manual training is designed solely to turn out master carpenters, or the course in short-story to develop Stevensons and Poes. The object is rather the steady recruiting of the ranks of those who can appreciate drama from each of its several angles of appreciation.



The student registers with the idea primarily of writing a play, or two or three. He is to be aided in this by a suitable text on the subject, and by lecture, discussion, and conference; but most of all by the careful analysis of at least twenty-five standard and successful plays from a prescribed list. The one-act form is for obvious reasons usually chosen as being the most practical for the student to attempt in composition, tho there should be nothing to prevent a more ambitious effort if the conditions warrant it. The models for analysis, however, would naturally include both long and short plays.

There will be those in practically every year's class who will not succeed in writing a play which can be considered at all for production. But they, with the rest, will have read and reviewed twenty-five or more good examples of modern drama; they will have achieved a broadened appreciation of drama thru direct contact with its conventions and its technic; they will have added to their general knowledge something of the terminology and the underlying principles of the physical stage. And it is likely that all this will abide with them the more for their having been, from their point of view at least, protagonists in tragic conflict with plot, character, and dialog.

It is more than probable that among those who are not able, and will never be able, to pour a story into the theatrical mould, there may be here and there one whose ability, analytical rather than creative, urges him successfully into the writing of criticism. There is even more poetry than truth in the witticism that a critic is someone who has tried and failed. For such members of the class, the writing of well-prepared critical theses should take the place of devising plays. In student work the foundation for the one kind of composition would differ little if any from that of the other.

Another condition, and by the very definition of a play a necessary one, is that any class in Dramatic Composition have, either within itself or close at hand, facilities for presenting or seeing presented both its own plays and certain of its models from time to time. For presentation before an audience is the test of any play; failing that, there is no sure method of final judgment on what has been written, nor indeed any inducement to write a play in the first place.

Given such a course as I have described, open to the students as indicated above, with certain prerequisite work and standards in literature and composition; given too the required facilities for the presentation of plays before an audience; what may be expected in

the way of results? What happens when these tender academics ("bench-warmers" one critic has dubbed them in a chesty moment) face the staggering problem of holding the mirror up to nature, as it were?

Fortunately the problem is not a staggering one at first flush. About half of us harbor a reticent but tenacious little idea that we could write a good play, once we set about it; the other half have tried it, or at least so aver the producers who look over the ill-begotten manuscripts!

Hence, just to create atmosphere in the class, the youths begin by reading a play or two. Urged by text, recitation, and discussion, they search for the substance. They read and discuss some more plays, until one day—presto! They have it. The melancholy Jaques said it long ago: All the world's a stage. *Ergo*, the stage is all the world. How lucid the whole business is! The fourth wall removed; that is all: men and women, doing things and saying things. What could be simpler? Into the mind of every student leaps half a dozen events within his own experience, any one of them far stranger, far more entertaining than any in the plays. And those are great plays!—Drama is life; nothing more, nothing less.

The antidote to this delirium is administered homeopathically, in the form of original exercises. In one, for instance, the embryonic playwright eavesdrops some unsuspecting group to the extent of three pages or so, being careful to insert also the accompanying actions of the different speakers. In another he reduces some event, taken from a newspaper, or perhaps one of the several of his own which he has been nursing, to dialog and "business." The utter impossibility of the first sketch, as far as dramatic value is concerned, he almost invariably sees from the beginning. The second exercise generally weathers his critical eye, standing securely until it is read, at which time it usually falls away, lusterless, stale, and in every sense unprofitable. Clearly something is wrong, tho in the one exercise the writer recorded exactly what he heard and saw; and in the other he was sincere and pains-taking, setting down the words just as he would have said them. Wherein fails this stuff that drama is made of? It fails, as is perhaps first recognized by some member of the class who will never write a play as long as he lives, in that "it doesn't get anywhere."

Thus it is that a play begins to be a thing not identical with life, but in mysterious ways related to it; something to be created, not found fully develop't; the realm of people strangely familiar, yet strange; the scene of actions such as have been ours, yet some-

how different. Whether the student has words for the phenomena or not, he catches the opalescent glints of closeness and distance, and the fascinating interplay of the particular and the universal, of that which is true and that which is Truth; he beholds the paradox of expansion in compression, of macrocosm in microcosm. Drama is not life, but something more and something less.

How much more and how much less drama is than life, your academic, being only in the third or fourth of man's seven ages, is forced to feel rather than measure. But almost without exception, however severe the disillusionment may have been, he still wants to write a play, altho he is not so confident that he can do so. He is entirely ready to begin at chapter one!

At this point begins the constructive work—terminology; a visit or two to a stage; the germ of a play (a character, an incident, or a phrase); the core of a play (a story); what is dramatic and what is not; and so on, ending with the experimental adaptation of some short-story. Supplementary to this the student reads and reports on plays, and learns what he can of how great plays have been written; he makes a collection of clippings, expressions, experiences, imaginings, which appeal to him as having dramatic possibility. These are discuss. By a certain designated time he is to have selected and formulated his "story"; by another he is to have it in scenario form; and at some final hour he is to submit the finished play. Practically all students can evolve a "story"; not many but who can, with more or less aid in class and from the examination of specimens, arrange it in some manner of scenario; but it is during the weeks following this that it is again made evident that many may be called, but only the few are chosen. It is in this period that the stiffness of plot and the unspeakable aloofness of dialog may bend the would-be dramatist's interest toward expository and critical considerations of the Charm in Barrie, Atmosphere in Ibsen, or (in extremely rabid cases) Technic in Shaw!

It will not be amiss, I think, to speak somewhat of the sorts of stories which come to light in a course of this kind, and to illustrate briefly.

Once in a while the story, or at least its inception, lies in the student's own experience. I think of two North Dakota plays which illustrate this: *Residues*, written in 1919 by Miss Ruth Martineson, a senior, and *Sacrifice*, in point of technic a better play, written in 1920 by Miss Ruth Baughman, a sophomore.

Miss Martineson knew a woman living on "The Missouri Slope" in North Dakota, who, as a romantic but accomplisht and



highly idealed girl, came out of the East nearly fifteen years previous to the time represented in the play, to teach school in what was then the cow-country. She boarded at one of the ranches, where she fell in love with and married, after her first year of teaching, Pete Meyers, the foreman on the ranch, a cowboy of the homeric type. But even then the "squatter" was invading and fencing in the grazing country; the great open reaches were doomed, and with them the romance of the cowboy. Pete Meyers and his wife took land and sat in at Dakota's game—wheat. The game was a losing one on "the slope", drouth, grasshoppers, or hail winning practically every year. Debt, hopeless and growing, bore them down and shackled them to their mortgaged soil. Romance and happiness withered. The woman's parents dying, her connections with the East of her girlhood fell apart one by one, until only a desultory correspondence with a much loved invalid sister remained.

The play is in two parts. In the first part, set in early winter, Meyers, brutal and hard, a grim but dogged failure, and his wife, a drab, clod-like "old" woman of thirty-five, still live in the gloomy little shack they built when they homesteaded their farm.—Pete returns from town with some groceries, "th' last fer a while". Credit having been refused him at his usual source of supplies, he has borrowed money from Jack Brent, a young neighbor who is just setting up, and done his shopping at another village. As he eats his supper he explains that he has just arranged for the new school-teacher to board with them.—Where would they keep her?—That was *her* lookout; she couldn't be *very* particular, coming out here!—There is also some mail, a letter for the wife. It was not in the sister's handwriting, he notes as he inspects it preparatory to delivering it, tho it did bear her postmark.—The sister had died.

In the second part we find spring arrived. Audrey, the new school-teacher, had also arrived, and the effect of her presence shows both in the little cabin and in the face of the Woman, whom Audrey calls Aunt Mary. The prairies are green with new wheat. The men are jubilant: there will be a great crop.. But the Woman has no faith; it has been thus so often.—School has closed, and the departure of Audrey throws its shadow before.. In Audrey the Woman sees her old self as in a mirror; she pictures what would be the glory of returning to the comfort and the culture of a realm she lost long ago. She is heroically glad for Audrey.—But Audrey has a beautiful secret! She and Jack Brent are to be married, and the Meyers' and Brents will be neighbors.

The Woman warns, pleads. In frenzied appeal she pours out

her story shorn of its splendor, and draws the picture of her desolation. She somehow holds herself responsible for this disaster which she has allowed to ripen.—It avails nothing. The girl goes out to join her lover, as Pete enters, exulting over the young wheat. There is no exultation in the Woman, who, gazing out into the springtime so bright with promise, sums up her life, and by implication the lives of all the rest, in the figure of the crucible in which, after the seething of some chemical action, there remain only the outworn agents—ashes, *Residues*.

In *Sacrifice*, a tragedy of blind affection, Miss Baughman pictures a neurasthenic mother, whose prototype she numbers among her immediate acquaintances, absorbing the lives of the son, a musical genius, and the daughter, a young woman about to be married to a practical and otherwise excellent young business man, a life-long chum of both. The crisis of the story is reached when Robert, the son, is awarded a scholarship for study in Paris. The prospect of his leaving prostrates the mother, and the son's devotion causes him to relinquish the scholarship. This action of Robert's stirs in George Hollister, the fiance, who has been deeply and materially interested in Robert's study, feelings and expressions which gradually precipitate the breaking of the engagement between him and the daughter. The play closes with the girl preparing supper and the boy going to the next room for a shawl for the mother, who lies back in her rocking chair—happy.

It is a strange but frequently noted fact that youth loves to paint pure black. Opinions might differ as to which of these stories is the blacker; but the fact remains that they are both dramatic, and entirely worth one's attention as problems to be elaborated, if not solved. Many a poorer story, requiring infinitely less thought and application, has filtered across the American footlights tintured by technic not appreciably better than much to be found in these two plays. With these themes, greater playwrights would have done greater things; that is all. But these students, in doing what they were capable of doing, were confronted by the necessity of observing, recalling, weighing, selecting, and arranging life-elements which make for reality, as in no other course within my experience.

In *Kara*, a little play bordering closely on melodrama, written in 1920 by Mr. George Crain, a junior, the story is different.. The title character is a parentless Armenian girl, a dancer, who escapes from captivity in the palace of a Turkish ruler, and by the help of a returning American army officer, reaches New York, where the action of the play occurs. After a series of adventures Kara has,

again by the aid of the young officer, now a civilian, secured an opportunity on the stage and has taken her audiences by storm. She is sending practically all of her earnings to the relief of her stricken country. Her contentment is clouded only by the fact that her younger sister, Sari, is still in Armenia, and no word has come of her. One day appears to Kara a peddler of oriental rugs and laces, who is none other than Mehil, the spy and servant of the pasha who has been cheated of his little Armenian jewel. Kara must return, if Sari, who is being held captive pending Mehil's return, is to live. The little dancer's struggle between her desire to help her suffering countrymen, and her love for her sister ends by her buying Mehil off with her most cherished possession, a magnificent string of pearls once her mother's. If he does not return Sari may yet escape. Mehil, after several refusals, is won and has his hand on the bribe when the hero enters bringing with him the reward of his affectionate efforts in behalf of Sari: a telegram from an American teacher in one of the missions reporting Sari's arrival there among refugees.

This material clearly lacks the weight of that previously cited, but one can readily see that the tale has its tense moments. And even if the writer did, as one critic reported, lump all his exposition in the first five minutes or so of the play, to have it done with; and even if he did close his play (as it originally appeared) with a smear rather than a stroke, he must be credited with having learned more about Turkish and Armenian life, the war-time atrocities, oriental geography, and even the Great War on the eastern front, than he might ever have known otherwise. And he learned it to use in something he was creating.—It is interesting to note that the germ of this story was a newspaper headline stating that two thousand Armenian refugees had reached safety in an American mission. He imagined Sari among these, and from that invented the rest.

Fancy sometimes furnishes a theme, as is the case in *When Mortals Sleep*, written in 1919 by Margaret K. Read, a junior. The action of this bit centers about a colleen orphaned by the influenza epidemic. Her lover, a young doctor, goes to the city to offer his services there and seems to have been lost also. The forsaken little girl has almost reached the point where she believes there are no fairies any more. But one evening in May she falls asleep by the old well and the whole trouble is cleared for her. The Wailing Banshee has been the cause of all the sorrow, having taken and kept in captivity the girl's Guardian Star. The Banshee is hailed into Fairy Court, tried, and sentenced to indefinite imprisonment. At a



kiss from the fairy, Happiness, the colleen awakes, and her lover is standing where the Fairy Queen's throne had been.

The experiments of the present year's class at North Dakota have been practically confined to Puritan and Pilgrim themes—or, speaking more broadly and perhaps more truthfully, to Colonial themes—and the field is proving fertile in spite of its distance, geographically, chronologically, and spiritually, from our own. The mysterious disappearance in 1623 of certain records of the Williamsburg colony is the theme of a promising tragedy, *John Bargrave, Gentleman*. John Bargrave, an honored member of the colony, entrusted with a responsible position in its government, is prosecuting two men for the embezzlement of a large sum of money from the colony. On the eve of his success in this he learns that the two men were merely tools in the hands of his own son-in-law. To save the family he destroys the records which make indictment possible.—In the *Diabolical Circle*, a farce named from Cotton Mather's definition of a wedding ring, Cotton himself, a vivacious daughter named Betty, two suitors (one the father's favorite, the other the daughter's), and a large old-fashioned clock bid fair to furnish entertainment well worth seeing. That famous old colonial character, Judge Sewell, and one of his various courtships, are offering material for a comedy.—Another of the plays is laid in Holland, where, the evening before the *Mayflower* sets sail, a young Englishman, who discovers that he is physically unfit to stand the hardships in New England, gives up his place in the ship to a young Dutchman. Incidentally both men love one of the *Mayflower* maids. The Englishman devotes such years of his life as remain, to the care of the girl's mother, who, because of failing health, must also remain in Holland.

The development of these plays is requiring a browsing about in history, biography, and literature built on these which is more profitable than any know who have not attempted the embodiment of a tale of other days. Indeed, I do not, as some ecstatically do, see any especial virtue in over-emphasizing the value of themes drawn from immediate geographical and spiritual environment. Where local history, or neighbor folk-lore and tradition appeals to the student as something he would like to utilize, well and good. But where he would go beyond his little horizons and become, as far as he can, a neighbor to stranger folk, then let him. In the one case, as far as he and his material are concerned, he intensifies; in the other case he expands. But in any case, wherever the search for story leads him, his obligation to the course, to the audience, and to himself is the same; and if he but

tells his story well, none of the three, his audience least of all, will have any score to pick with him.

This, in a way, is the evidence for an academic course in play-writing and criticism, open to properly equipt undergraduates, built largely upon the study of plays, its prime object to strengthen the cause of good drama by increasing the number of those who not only know but understand what a good play is and can guide actively the dramatic impulses of their respective communities. It is granted that plays coming from such a course will be built upon the sands of theory and technic rather than hewn from the knowledge of life. It is granted, nor apologized for, that in such a course the instructor, by reason of a larger experience, a maturer judgment, and most likely a surer instinct, will wield a potent influence. The office of this should be, however, to lead and indicate by suggestion rather than to build the product itself or to dish up dogma, lest the plays issuing wear infallibly and too saliently a common stamp: that of the instructor.

As for the mushroom elements of the phenomenon, it is granted that it appeared suddenly; and it has been vividly suggested that it was and continues to be fertilized by something distinctly rotten in theatrical Denmark. But with these the analogy balks. Any course which affords vigorous exercise in English composition, compels a considerable acquaintance with the literature of the modern stage and with the methods of thought in those who wrote it, and begets an appreciative and perhaps not entirely impractical conception of the theater as a social institution, seems to many of us to call lustily for some adjective other than "fragile"; and ascribing to it the quality of evanescence, to smack somewhat of false prophecy.

## Book Reviews

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MODERN AMERICAN PROSE SELECTIONS: BYRON J. REES, Professor of English at Williams College, editor. Publishd by Harcourt, Brace, and Howe, New York City, 1920. XII+181pp.

The years since the great war have seen a new type of text-book of English prose selections. For fifteen years or more preceding 1914 an army of books in rhetorical analysis (as it was then called) poured from our publishing houses. These volumes were made up from the so-called "classics" of English literature, and no contemporary writer—unless it were Kipling, and he with apologies—could hope for representation.

A few years before the war, however, a change began to be noted: contemporary writers began to be represented; at first sparsely, then with growing confidence that the present could furnish something as worthy—in substance at least, if not in style—as could the Victorian or earlier epochs. In the last three years this movement toward the accrediting of present-day authors has been vigorously accelerated, and the past, tho not forgotten, has been not only not emphasized, but in many cases merely suggested as a more or less respectable ancestry for things now living in the world of letters.

In the text book before us every selection (or extract) is from a writer whose work is actually contemporary or, at furthest, very recent. In this respect the volume is exceptional if not absolutely unique. The collection is not large. It consists of only twenty articles. But the writers are among the chief notables in twentieth century America: Theodore Roosevelt, Calvin Coolidge, President Wilson, Booker T. Washington, Jacob A. Riis—to mention only a few of the best known; and the articles themselves cover so wide a range—biography, history, politics (in its broadest, philosophical sense), education (also broadly interpreted), criticism, industrial life, and literature—that the reader comes to look upon his own country as a little cosmos, and upon life itself as a thing full of inspiration, as of charm.

Selections from the contents for special mention is difficult, so much depends upon the viewpoint and upon the reviewer's interest in the several subjects treated. Some of the pieces, to be sure,—for example, Roosevelt's oration, "Abraham Lincoln", and President Wilson's essay, "When a Man Comes to Himself,"—are already all but classics; but W. L. Bryan's "Education through Occupations", tho perhaps not so widely known, is one of the most stimulating and



practically helpful of all recent utterances upon the meaning and conduct of life. And from an absolutely different angle, "The Democratization of the Automobile," by Burton J. Hendrick, and "The Education of Henry Adams", a criticism by Carl Becker, are revelations of the nature and conditions of human achievement almost equally impressive. Nor can the reader close the book without a thrill of tender regret at the passing, even in our new and untraditioned country, of the old abandoned farms, and of the "Old Boats," both exquisitely pictured in an essay by Walter Prichard Eaton.

The book is, we think, too cheaply bound; and a few foot-notes to explain some unfamiliar matters would add to its value in the eyes of the general reader and would not be held superfluous by the student, for whom apparently the Selections are intended. But, all in all, the little volume deserves a cordial reception and a wide sale. Few texts, if any, of the sort can rival it.

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THE PASSING OF THE NEW FREEDOM: JAMES M. BECK, formerly Assistant Attorney General of the United States. George H. Doran Company, New York City, 1920. IX+169 pp.

Mr. Beck's thesis is that the framers of the Constitution of the United States wisely steered a course between mob rule and one-man despotism. In so doing they relied upon six fundamental principles which he enumerates as follows: the representative principle, the dual (multiple) form of government, the guaranty of individual liberty thru Constitutional limitations, and independent judiciary, the system of checks and balances, and a concurrent power of the Senate and the Executive over foreign relations. In contravention of the spirit, if not the letter, of the Constitution, President Wilson took advantage of the fixt tenure of his office and built up an extra-Constitutional government by appointing on his own initiative officials who were responsible only to him, thereby building up a personal control not merely of the foreign relations of the country but also, to some extent, of domestic policies. The President is represented as calling the attempt of the fathers to keep the Executive and Legislative branches within prescribed orbits Newtonian and as calling the struggle of each branch to dominate the other Darwinian. In these passages the author makes Wilson a doctrinaire of the most naive

thought in justifying his course of action, the motive all of the time being his personal prestige.

The "New Freedom" as exemplified in the ideas attributed to the President is regarded by the author as "more insidious and therefore more dangerous" than Socialism or Bolshevism. Hitherto the Constitution "has proved a very effective anchor; but it is slowly swinging away from its ancient moorings." Some of the specific complaints of the author are that "the representative principle has been challenged in twenty-two States of the Union by the initiative and referendum," that "the guaranty of individual liberty has been violated by many socialistic measures, while property rights are destroyed from time to time by confiscatory legislation;" that "the Fifth and Fourteenth Amendments have largely broken down as bulwarks against confiscatory legislation." President Wilson's advocacy of a League of Nations and his failure to advise with the Senate on the matter are particularly condemned. A picture is painted of what the author thinks might have happened if the President had done differently.

The book is such a one as a clever, versatile, and keen prosecuting attorney would be expected to write. Those who are sympathetic with his side of the case will regard his thrusts and analyses as just and admirable. Those who are sympathetic toward the cause of the defendant will naturally find much to abominate.

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THE JUNIOR HIGH SCHOOL: THOMAS H. BRIGGS, Professor of Education, Teachers College, Columbia University. Riverside Texts on Education, edited by E. P. Cubberley. Houghton Mifflin Company. The Riverside Press, Cambridge, 1920. X+350 pp. Price \$2.00.

The Junior High School is a new volume in the Riverside Texts in Education and is classified under the Division of Secondary Education, which is under the editorial supervision of Professor Alexander Inglis who contributes some prefatory remarks to this work of Professor Briggs. In these remarks Professor Inglis adequately states the problem to be an effort to discover what sort of junior high school ought to constitute a part of our public school system; he assumes that the first critical stage, that of recognition, has been successfully passed. Inasmuch as the book presents "the results of a

careful and critical analysis of junior high schools thruout the country", it is in the nature of an interpretative survey which aims to "point out defects and merits" and to suggest a "constructive program." It embodies observations gathered from personal visits to more than sixty junior high schools, supplemented by a study of all available literature, by questionnaires and by conferences.

Professor Briggs introduces his work by a consideration of the criticisms of the "eight-four" organization. Eleven of these are discuss in detail, some of them being justified as defects of the system. He then proceeds to differentiate between elementary, intermediate (junior high), and high school education; he defines the function of the junior high school under five specific headings which are very suggestive. His treatment is an interesting analysis of the problems which have arisen from the enormous increase in the number of public high schools, due to "a beautiful, even if somewhat blind, belief in education."

In Chapter II the author deals exhaustively with the development of the Junior High School, discussing the major types conceived and the extent of the movement, from its active initiation in California in 1909 down to the present when 791 schools are listed as existing, this number probably not being a complete list. In an astonishingly large proportion these schools have come into being on the initiative of superintendents. The universal object has been to eliminate waste of effort and to secure a more purposeful training, one not wholly confined either to vocational lines.

In succeeding chapters Professor Briggs discusses the claims made for the junior high school and the objections voiced against it, the plan of organization, the special functions of such a school, the curricula, and the methods of teaching. Since textbooks are a determining feature for the methods pursued, he points out that the new texts will be more in harmony with modern educational theory than the old. This ought to reassure those who hesitate on account of this very important point. In these successive chapters, which are illustrated by a wealth of material gathered from personal observation, any superintendent who is perplexed as to the course he ought to follow will find abundant light upon his problem. He will also find all the arguments necessary to present his case to his school board in the event that he is desirous of initiating the formation of a junior high school.

In view of the present shortage of teachers and the salary problem involved, the chapter on "Teachers and Salaries" is one of the most important in the book. The teacher is, first and last, the most



vital factor in the school. There is no place in the system where ability is required more than in the years comprised in the junior high school. In scholastic equipment the junior high school teachers should fully equal those in the senior high school. They should be more equitably compensated, a thing to which school boards do not readily agree, the assumption being that such teachers are still doing grade work. Here again facts and figures are enumerated for the thoughtful supervisor. The associated chapter on "Costs" also supplies a wealth of valuable information.

As an educational leader, the author speaks thruout in favor of the subject which he treats; yet, there is no minimizing of the obstacles and no slurring of difficulties. The country-wide trend toward the movement is an indication of its propriety. School authorities bear witness to the wholesome spirit which this departure has produced. It will make for clearer purposes, new relationships socially, and a new spirit which "will make the intermediate years not only worth while in themselves, but an inspiration for every child to continue as long as profitable the education for which he is by inheritance best fitted." This is a day of vast unrest and tremendous changes. In the vague notion that the schools provide the masses with the opportunity for a greater freedom, multitudes are flocking to them as never before. It is proven that the old organization has broken down and that we are in danger of meeting this almost pathetic yearning with a presentation of the mere husks of an education. The junior high school development is a part of the effort to respond to the call. There are many unsettled problems; yet, to the administrator or teacher who is filled with a lofty sense of his mission, Professor Briggs supplies an abundance of data, a hint of pitfalls, a sane presentation of objects and an intelligent forecast of the future that will prove most helpful. The whole work is pervaded by a broad and lofty idealism which, at the same time, never loses sight of conditions and practical possibilities. It is capable of comprehension by the general public as well as by the profession and it is to be hoped that many who are outside the actual ranks of instructors, particularly the members of school boards, will take advantage of this opportunity to read and ponder.

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A THOUGHT BOOK ON THE SOCRATIC METHOD: T. SHARPER KNOWLSON, Director of Instruction at the Pelman Institute, editor. J. P. Lippincott Company, Philadelphia, 1920. VIII +200 pp.

This book does not lend itself well to the purpose of a review, but it can be described. "A Thought Book," it is called, and its aim is to develop the habit and power of thought. This it will undoubtedly do for him who follows directions, but the difficulty is that, in the main, only those who already know pretty well how to use their minds will, or even can, follow directions. In other words, it is not a book for high school boys, and my long acquaintance with college boys leads me to fear that the greater number of even such will also fall by the wayside. The thoughtful, mature student is the one who will profit.

The editor, or compiler, (one can not say author, or writer) begins his short introduction by saying, "I suppose it is the practise of every reader of books to make a more or less careful record of the thoughts that have appealed to him." I doubt it. I very much doubt it. I wish it were true. But then perhaps all the more need for a "Thought Book" or something to develop what certainly must be a latent power with most people! But to the description.

The plan of the book is based upon the Socratic method, the compiler says. And that is true. The *Maieutic*, not the *Ironie*, however,—*the art of giving birth to ideas*, Socrates would say. At the top of each page, in bold-faced type, is a short quotation from some writer expressing a worthy thought, a thought that has "*generative power*," Mr. Knowlson says. The remainder of the page is cut in two by a vertical line. At the left, headed "Queries," are from two to six questions based on the quotation above calculated to stimulate thinking, "to give birth to ideas." At the right the space is ruled and headed "Notes" and is to record the answers, in briefest form, to the questions at the left. This description is correct of all pages bearing odd numbers. The even-numbered pages are the same save that the questions are lacking. They are to be supplied by the student.

This little "thought book" can be very helpful. For anyone who will patiently and systematically do as directed the reward will be great. He will come to be more thoughtful, to think more clearly, and finally to be more original and independent in his thinking. But like all other good things, it requires effort on the part of him who would profit. Activity is the great law of growth. The purchase of a "thought book," even, will not result in mental

development unless the purchaser puts forth his own mental activity. But the book can be a great stimulator. It is hereby commended to thoughtful people, or to people who wish to become thoughtful.

The publishers have done a good piece of work. The book is well and attractively bound. The type is of good size and clear and the paper of good quality, suitable for use of pen and ink which should be generously used.

A. J. LADD

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THE NONPARTISAN LEAGUE: Its Birth, Activities, and Leaders.

WILLIAM LANGER. Morton County Farmers' Press, Mandan, N. D., 1920. Paper, 240 pages.

A perusal of this volume leads to the conclusion that the author, Mr. Langer, Attorney General of North Dakota during the past four years, had at least two motives in its preparation. One of these is stated in the "Introductory", as being the desire to offset the wide publicity in favor of the League which has been carried on by what he refers to as the "Socialist" leaders of that movement. Especially he has in mind the two books which have recently appeared on the Nonpartisan League, namely, "The Nonpartisan League" by Gaston, and "The Story of the Nonpartisan League" by Russell. (See the October, 1920, issue of this publication for reviews of these books.) The other motive, which is probably the stronger of the two, is the desire to discredit the leaders of the League. While, in this work, not exactly espousing the program of the League, which of course he had espoused until the time he broke with that organization, Mr. Langer does vigorously defend the course of action on the part of North Dakota farmers which antedated the formation of the League and which went far to account for its formation. He writes: "I have been closely connected with the Nonpartisan League, having at its very first convention been endorsed by it for Attorney General, after that having been elected and later endorsed and reelected. Shortly after my reelection, I voluntarily, because of their lack of faithfulness to their members; their autocracy and political rottenness, commenced war on the leaders of the League in an attempt to get real tax-paying farmers and not Socialists at the head of it." His sympathy with the farmers' effort at correcting the economic abuses he says undoubtedly existed and do now exist he expresses in these words: "I believe the United States of America is cursed with many economic evils. I hate profiteering



and gambling in options. I detest the men who at harvest time force down the price of wheat, rye, flax, oats and when the producers are forced to sell, pay them a low price and then charge the consumers exorbitant sums when they come to buy. I abhor the employer who will not permit collective bargaining on the part of his workmen, or the employer who is opposed to a just Workman's Compensation Fund" (p. 5).

Mr. Langer maintains that the city dwellers, generally, do not understand the marketing trouble of the farmers, for it is undoubted, he says, that the Minneapolis Chamber of Commerce fixes the price of grain the local line elevator men offer farmers, notwithstanding the price in the world markets (p. 17). Consequently, he maintains, the North Dakota farmers were justified in their long attempt to get the establishment by the state legislature of a state owned terminal elevator. This attempt began in 1893 but did not gain much force until the legislative sessions of 1912 and 1914. He thinks the movement might have succeeded had it not been that in the latter year, (using his words), "the speaker of the House of Representatives was a self-opinionated, egotistical, blow-hard by the name of Treadwell Twitchell," who, he states, had made up his mind that a State terminal elevator would be a failure, and so used his influence to defeat the will of 50 thousand voters. (p. 13). In substantiating his claims that the Minneapolis Chamber of Commerce and grain dealers systematically rob the farmers, he produces the same testimony made before Congressional investigations and the findings of the North Dakota Bankers' Association, who investigated the grain trade, which Mr. Russell uses in his volume on the Nonpartisan League. He gives tables from the findings of the North Dakota Bankers' committee which show that the grain dealers buy grain from farmers at a low grade, mix it with a high grade grain, and then sell it as a high grade, thus making handsome profits.

The bulk of this volume is devoted to discrediting the Nonpartisan leaders by proving that they have been "Socialists;" to showing the growth of bureaucracy in the State government and the use of this powerful system for political purposes; to the employment of State banks and League funds by the leaders for their own aggrandizement; to the increasing of the farmers' taxes; and to killing-off, by the leaders of the movement, of officials and agents of the League who will not take the dictation of the "Socialist" leaders. He contends that the movement should be put under the direction of the real farmers, or under leaders opposed to the present

leaders. He regards Governor Frazier as being the mere tool of the "Socialist" leaders, Townley, Lemke, et. al., and in no sense a real farmer leader. I believe he would assign Mr. Hagen, and other farmers elected to office as Nonpartisans to the same category.

Mr. Langer has written a very interesting and vigorous volume. It has a punch, and even if the reader does not assent to some of the statements, he is carried along by its energy. The book bears evidence of having been rather hastily compiled, and this may be due to the fact that much of the material, evidently, is that presented by the writer in his campaign speeches against the League. The fair minded reader will find a bias in the volume against the League, just as he finds one in the books by Gaston and Russell in favor of the League. In these tempestuous and heated times it would be a thankless task to attempt to point out the degree of bias in either direction. The striking of the happy medium must be the work of the future historian. But, meanwhile, it is well to have both sides of the controversy presented, and the reader is advised to read the volumes of both the proponents and the opponents of the Nonpartisan League.

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THE FUNDAMENTALS OF SPEECH: CHARLES HENRY WOOLBERT,  
Assistant Professor of Speech, University of Illinois. Harper  
and Brothers, New York and London, 1920. 385 pages. .

Does anyone care to peruse a new textbook on public speaking? Assuredly yes, when it comes from the fertile and trenchant pen of Professor Woolbert. Those of us who have heard him at conventions of the National Association of Teachers of Speech (of which he is president) welcome this volume with special relish. In his introductory chapter he remarks, "The page is impersonal, but the speaker is a living personality. Words without the sound of the voice and the sight of the man who utters them can easily be words and nothing more." This sounds rather paradoxical, for on every page we feel the lively presence of the author's personality; it seems as tho he were standing before us talking in his usual stimulating and pungent fashion.

The scope of the book is revealed in its sub-title, "A behavioristic study of the underlying principles of speaking and reading." It is, therefore, limited to a textbook on delivery and is not concerned with subject-matter and thought-building. The author designates

the four factors of speech as: Thought, Language, Voice and Action. The first two, obviously, belong in the study of rhetoric, while the other two are foundational in oral expression. In the third chapter, however, he forsakes this division and lugs in a discussion on outlining a speech. Manifestly this portion is out of place in a chapter headed, "The Conversational Mode." It is hard to see just why an analysis of the types of outline finds its way into a textbook on delivery. How interesting, but irrelevant subjects will creep in!

The author does not differentiate very much between speaking and reading. And why should he? The principles in each process are fundamentally the same. The speaker communicates his own thoughts and feelings; the reader communicates the thoughts and feelings of another. The book aims to be comprehensive of the whole field of oral expression. As he states in the preface, "This book is offered as a statement of fundamentals that lead into any of the paths the subject may take; conversation, common reading, interpretation, impersonation, public speaking, dramatics and the speaking we call oratory. Democratization of speech-training is its prime object. It is gratifying that the author is not so ambitious to instruct prize pupils and gifted orators as he is to help the masses speak moderately well. His one obsession—if such it be—is the need for carrying speech instruction to all types of men.

Professor Woolbert has always been a keen student of psychology and recently received his doctorate in that field. This explains why the book stresses the psychological aspects in speech. In places one almost wonders whether it is a treatise on public speaking or on psychology. He likes to delve into the psychological reasons for defects in the spoken word. With the insistence that speech is a matter of the whole man he *psychologizes* about the thinking apparatus, emotional machinery, muscular activity and the like. But these chapters on mental and emotional behavior are unquestionably the most scholarly and merited portion of the book. It is by far the best treatment of this phase in speech education that has yet appeared. One regrets that the diction gets *textbooky* and academic. The ordinary reader—whom the author aims to instruct—will declare there is too much mention of "volitional processes," "emotional complexes," "resonance complexity," "harmonious functioning," "negativism," "emotionality," and "motivation."

The weakest part of the book is the chapters on Gesture, Voice, Time and Pitch. These subjects have been treated so fully in scores of texts that the author can hardly be expected to offer anything



new or striking. The familiar enumeration of the kinds of gesture and the designation of the qualities of voice as *pectoral*, *orotund*, *aspirate*, etc., and particularly the inclusion of hackneyed selections for drill exercises savor too much of the discarded books on elocution. One wishes that these chapters had been reduced or even omitted.

At the end of each chapter—and there are thirteen in all—the author has listed some very practical, suggestive assignments. These he has apparently taken from his own class-room exercises. In fact the whole book comes fresh from his actual experiments in teaching. This plan of evolving a textbook from university courses deserves commendation; the inductive method is always best.

The very last chapter is captioned, "Standards of Effectiveness in Speaking." A few paragraphs are devoted to a discussion of audiences and occasions. It is disappointing that so little space was given to this important factor of success in public speaking. How many speakers—particularly students—fail thru lack of right relationship with an audience. Professor Woolbert is exactly the man who should have expatiated on the psychology of the audience.

Every teacher of oral expression should own—and study—*The Fundamentals of Speech*. It is scholarly, inspiriting, and abundantly suggestive. The ambitious speaker can find profitable counsel in it and the college student will candidly declare, "It's not bad—for a textbook."

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# University Notes

**Faculty Additions** In the October issue of the Quarterly Journal a list of faculty changes to date was given. Since that time two other positions have been filled. The men finally secured to fill these are noted below:

Mr. Alfred Boyd has been appointed Assistant Professor of Civil Engineering. Mr. Boyd received his C. E. degree in Washington University, 1894. He has had considerable teaching and administrative experience—as Assistant Professor of Civil Engineering in the University of Nebraska, Professor of Civil Engineering in the Oklahoma A. & M. College, and as Dean of the School of Engineering in the same institution, from which latter position he comes to us.

Mr. Harry A. Miller has been appointed Assistant Professor of Business Administration. He comes to the University from government service in Africa, as Deputy General Reviewer of Customs at Monrovia, Liberia. Previous to this he served as one of the American members of the Liberian Mission to negotiate Peace and was stationed at Paris for about one year. He has had charge of the financial Department of Government Restaurants established at the beginning of U. S. war preparations. Mr. Miller is a public accountant, auditor, and reporter of long experience.

**The University and Educational Gatherings** The University of North Dakota is well aside from the main lines of travel and thus always a very considerable distance from the meeting places of the great national gatherings of various educational associations. Both in time and money attendance upon such meetings is therefore very expensive. If this were only occasional, as in most other sections of the country, it would not be so serious, but being regular a habit of attendance is difficult to establish. And this same matter of expense prevents the University from giving much assistance. In spite of the above, however, the University was represented by a goodly number at the various meetings held in Chicago during the recent holidays as shown by the list that follows:

Dr. H. R. Brush, Department of Romance Languages.

Dr. B. J. Clawson, Department of Pathology.

Mr. J. H. Corbett, General Secretary of the Y. M. C. A.

Dr. H. J. Humpstone, Department of Psychology.

Dr. A. G. Leonard, Department of Geology.

Professor C. N. McCune, School of Law.

Dr. Norma E. Pfeiffer, Department of Botany.

Dean H. E. Willis, School of Law.

Dr. R. T. Young, Department of Zoology.

Professor L. P. Dove, at the same time, attended, as delegate from the local Chapter, the Fifth Annual Convention of the American Federation of Teachers at St. Paul.

**Supplementary Service List**

Since the Service List of the University, in the World War, was given a year ago, attention has again and again been called to it as necessarily incomplete, owing to the difficulty of securing data of men constantly on the move. In an attempt to complete the list and to make it accurate we have asked for the cooperation of all interested. As a result, a few corrections have been sent in and a few additional records secured. They are found in this Note. The list is now as complete and as accurate as it can be made at the present time. We still welcome corrections and additions, and shall be glad to give them space from time to time.

The supplementary list here found adds 17 new names, making a total of 1287. Of the 17, 15 saw actual service either in camp or on the field of battle, and two were engaged in allied service. This brings the number entitled to Service Flag designation up to 1055. The list follows under the same headings and in the same form as used in the original list found in the January, 1920, issue of the Quarterly Journal.

ALUMNI

Burnett, Ralph A., Livingston, Montana, LL. B., 1910. Permanent member Legal Advisory Board, Park County, Montana. Member of Committee on Liberty Loan Campaigns, Four-minute Speaker, Assisted in Red Cross and War Chest drives.

Foss, H. Marcus, Hatton, North Dakota, B. S. in E. E., 1918. Enlisted April 8, 1918, at Grand Forks, North Dakota. Private. Sent to the Training School for Engineers at Camp Humphreys, Virginia, where he remained twelve months. Discharged March 31, 1919, at Camp Dodge, Iowa. Present address, No. 325 Amber St., Pittsburgh, Pa.

Grimson, G., Langdon, North Dakota. B. A., 1904; M. A., 1905; LL. B., 1906. Government Appeal Agent. Chairman Legal Advisory Board of Cavalier County, North Dakota. Member County Efficiency Committee. Chairman Four-minute Men of



Langdon City and of Cavalier County. Chairman Cavalier County War Work Committee.

Heising, Raymond A., Milburn, New Jersey, E. E., 1912. Since 1914, Mr. Heising has been connected with the Western Electric Company of New York. During the war the Research Department of this Company gave its entire attention to research and development for the Army and Navy. The National Research Council appointed Mr. Heising on a "Sub-committee on Wireless Communication between Aircraft", and from May, 1917, his entire time was given to that work. On July 2, 1917, he made the first successful experiment of radio communication from an airplane to the ground and from the ground to an airplane. On August 20, 1917, he and a co-worker held the first radio telephone conversation between airplanes in the air that was ever held. These experiments were performed at Langley Field, Virginia, for the Signal Corps. On November 10, 1917, for the Navy Department, he made the first experiment using radio telephones between two submarine chasers. In February, 1918, at Norfolk, Virginia, he also made experiments for the Navy Department. The authorities were beginning to become interested in the possibility and desirability of inter-aircraft communication. In this line of work Mr. Heising continued until the close of the war. The radio system that he used in these experiments was his own invention, and the important fundamental features in it are still being used by the Army and Navy.

(This is a correction of the statement found on page 210 of the January, 1920, number of the Quarterly Journal.)

Hesketh, John, Gilby, North Dakota, B. A., 1917. Known to have been in service, but details are not available.

Hoff, Norman S., Sheldon, North Dakota, B. S. in E. E., 1918. Enlisted June 29, 1918, at Lisbon, North Dakota. Private, First Replacement Reg. of Engineers. Stationed at Washington Barracks, Washington, D. C. Recommended for E. O. T. C. Discharged at Washington Barracks, December 1, 1918. Present address, No. 322 N. Titus Avenue, Ithaca, New York.

Lavin, James B., Hatton, North Dakota, B. S. in E. E., 1918. Enlisted at Minneapolis, Minnesota, April 30, 1918. Seaman, 2nd cl. in the U. S. Naval Reserve. Stationed at Great Lakes Naval Station, Illinois, June 26 to November 12, 1918; Pelham Bay Training Station, New York, November 16, 1918, to January 8, 1919; Officers' Training School, Stevens Institute,

Hoboken, New York, January 8 to April 1, 1919; U. S. S. "Ice King", April 1 to May 24, 1919. Promotions: from Seaman 2 cl. to Chief Machinist's Mate, then to Machinist (warrant officer), later to Ensign. Released at South and Whitehall St., New York City, May 14, 1919, and from active duty, June 14, 1919. Present address, 322 N. Titus Avenue, Ithaca, New York.

Patterson, Orville J., Grand Forks, North Dakota. E. M., 1912. Known to have been in service, but data not available.

Scarf, Robert C., Thermopolis, Wyoming. B. A., 1914. Enlisted at Ft. Slocum, New York, August 10, 1917. Private. "I" Co., 38th Inf. and "C" Co., 9th M. G. Batalion. Mr. Scarf was stationed at Syracuse, New York, for three months and at Camp Greene, North Carolina, for five months. He was then sent overseas and spent eight months in France and an equal time in Germany. In France he served with his battalion (9th Machine Gun) on the Marne thru June and July, 1918, on the Vesle in August, and on the St. Mihiel front in September; on the Argonne front in October he was attaché to the 3rd Division Military Police Company and, as he says, "became the anathema of all good soldiers, an 'M. P.'." In this capacity he also "cleaned up several small French Villages." A little later he was returned to his Battalion and sent into Germany with the Army of Occupation where he did garrison duty in small villages for eight months. A portion of this time he served as instructor in the garrison school. Mr. Scarf was cited for "exceptional gallantry at Paroy, France, July 15, 1918." Discharged at Camp Dodge, Iowa, August 24, 1919. Present address, Thermopolis, Wyoming.

Shellenberger, Rolfe, Minnewaukon, North Dakota. B. S. in M. E., 1918. Known to have been in service, but details not at hand.

Shunk, Reyuold A., Anselm, North Dakota. B. A., 1916, M. S., 1917. Known to have been in the service, but details not available.

Whitford, William C., Grand Forks. B. A., 1914, M. A., 1915. Entered the service with the draft contingent from Traill County on June 24, 1918. Stationed first at Camp Dodge, Iowa, later at Camp Cody, New Mexico. Entered as Private and was promoted to Corporal. Assigned to the Depot Brigade and later transferred to the Development Battalion where he did teaching work until the influenza broke out. Just before

signing of the Armistice, he was recommended for the O. T. C. at Sacramento, California. Discharged on December 6, at Camp Cody, New Mexico.

#### FORMER STUDENTS

Craig, Raymond W., Lisbon, North Dakota. 1909-1910. Known to have been in the service, but record not available.

Land, Gustav A., Mohall, North Dakota. 1914-1915. Enlisted at Paris Island, South Carolina. Private in the U. S. Marine Corps, "F" Company, 11th Regiment, A. E. F. France. Promoted to First Class Private. Discharged on August 11, 1919, at Norfolk, Virginia.

Rukke, Guy V., Fort Brown, Texas. 1899-1900. Mr. Rukke entered the University of North Dakota in 1894, graduating from the Normal Department in 1900. He went from here to the University of Michigan entering the Medical Department in the fall of 1900. He received his medical degree four years later. In 1906 he entered the Army Medical School at Washington, D. C., graduating in 1907. He was at once commissioned First Lieut. Med. Corps and sent to the Philippines where he served two years and three months. He has enjoyed the following promotions: from First Lieut. Med. Corp to Captain Med. Corps, June, 1910, then to Major, Med. Corps, August 13, 1916, Lieut. Col. Med. Corps, June 15, 1918, and Col. Med. Corps, May 5, 1919.

Colonel Rukke has served at the following stations: Division Hospital, P. I., Ft. McKinley, Rizal Province, P. I.; Camp Eldredge, Laguna Province, P. I.; Puerto Princesa Palawan, P. I.; Leeterman General Hospital, San Francisco, California; Jefferson Barracks, Missouri; and at Ft. Bliss, Texas. He was with the Punitive expedition in Mexico. He was on College Duty at the universities of Minnesota and Michigan. He also served at the Plattsburgh Barracks, Ft. Porter, New York. He commanded Base Hospital 23, Buffalo, New York, and took it overseas. He organized and commanded Hospital Center of Vittel, France, until its close after the Armistice. He served with the British Expeditionary Force for one month near Ypres, France. He commanded the Hospital Center at Mesves, France, A. E. F., until its close. In all he served in France from November, 1917, until May 24, 1919. He was returned to Walter Reed General Hospital. Now at Brownsville, Texas,





Van Syckle, Leete G., Grand Forks, North Dakota. Law 1, 1913-1914. Mr. Van Syckle was a nephew of Dr. J. D. Taylor, a prominent physician of Grand Forks for many years and for several years a member of the Board of Regents of the University of North Dakota. He entered the University High School from the Northwestern Military Academy, Highland Park, Illinois, in September, 1909, and was a student in that school for several semesters, from 1909 to 1913. He then entered the University Law School, remaining one year, 1913-1914. In answer to the draft he went, on September 3, 1918, with a contingent to Camp Grant, Rockford, Illinois. On September 30, he was transferred to Camp Hancock, Georgia. Here he was taken, almost immediately, with the influenza, and died on October 5. Mr. Van Syckle was quiet and reserved, very much of a gentleman. He had an artistic temperament, was a musician of promise—a member of the Philharmonic Orchestra of Grand Forks for several years, and always in touch with the finer things of life. Tho large in stature, he was never rugged and fell an easy victim to the dread disease. He was the only child of his widowed mother, and the sacrifice is keenly felt.



serving as District Surgeon of the Brownsville Patrol District. Present address, Ft. Brown, Texas.

Van Syckle, Leete G., Grand Forks, North Dakota. Law 1, 1913-1914. (See half-tone insert, corrected from page 189 of the January, 1920, Quarterly Journal.)

Webster, Ivan M., Lisbon, North Dakota. 1915-1916. Mr. Webster joined the North Dakota National Guards March 30, 1911, and was in continuous service, in one way or another, from that time until the date of his discharge, July 17, 1919. During the World War his services were as follows: he was first assigned to Headquarters Co., 164th Infantry, then transferred to Co. "F", 116th Engineers, and still later to Co. "D", Headquarters Battalion, General Headquarters A. E. F. He began service as a Private and enjoyed three promotions—to Sergeant, then to First Sergeant, and, finally, to Sergeant First Class Engineers. He saw foreign service from December 24, 1917, to May 15, 1919. Discharged at Fort Sheridan, Illinois, July 17, 1919. Present address, 820 9th Street North, Fargo, North Dakota.

Wright, William N., Manvel, North Dakota. S. S., 1914. Known to have been in the service, but record not available.

#### STUDENTS OF THE UNIVERSITY HIGH SCHOOL

Nelson, Arthur B., Finley, North Dakota.. 1906-1907. Enlisted June 15, 1918, at Fargo, North Dakota. Private, Co. B., 113th Supply Train-Truck Driver. Stationed at Camp Shelby, Mississippi. Discharged at Camp Dodge, Iowa, July 7, 1919.

Rasmussen, Carl M., Grand Forks, North Dakota, 1912-1913. Enlisted at East Grand Forks, Minnesota. Sworn in May 17, 1917, at Jefferson Barracks, Missouri. Private. Attached to 16th Inf. Later assigned to 34th Inf., Co. "F", Regular Army. Transferred to 21st Machine Gun Battalion, February, 1918, 7th Division, El Paso, Texas. Mobilized, Waco, Texas. Granted furlough July 3rd, 1918. Transferred to Casual Detachment, Waco, Texas. Transferred to General U. S. Hospital 29, Fort Snelling, Minnesota, September, 1918. Discharged at Fort Snelling, August 9, 1919.

(This is a correction of the statement found on page 285 of the January, 1920, number of the Quarterly Journal.)



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# Editor's Bulletin Board

In the July number of the Quarterly Journal will be found a brief history of education in North Dakota. The various phases of the study are being handled by people who have been either long and closely associated with the work they present or who have more recently become interested in the same. Each article, therefore, is the fruitage of personal interest and careful investigation. A mere statement of the topics and writers as given below will at once inspire confidence in the minds of all acquainted with the situation. If these people can not interpret the development of education in the State it can not well be done.

GENERAL TOPIC: The History of Education in  
North Dakota

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7. General Administration  
W. L. Stockwell, formerly Superintendent of Public Instruction (six years) in North Dakota

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PUBLISHED BY

The University of North Dakota

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A. J. LADD,  
EDITOR

NORMANDEN PUBLISHING CO.





# The Quarterly Journal

VOLUME II

APRIL, 1921

NUMBER 3

## The Dakota-Minnesota Interstate Drainage Suit

E. F. CHANDLER,

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The final hearings were recently held before the United States Supreme Court, and decision is now awaited, in a suit which has been prosecuted for several years by the state of North Dakota, with South Dakota also interested, against the state of Minnesota. The case is based upon widespread and injurious flooding which has occurred in recent years on the lower lands in Dakota along the Bois des Sioux valley, consequent (at least in time) upon extensive ditching thru higher lands adjoining in Minnesota which was done under state appropriation or by state authority. The final decision when rendered will be of importance not only in its immediate effect on drainage work in the particular locality in question but also because of its possible far-reaching application to many other areas in these or other states where the conditions and difficulties are nearly identical or analogous.

Drainage improvement of agricultural lands is one of the movements of the present age. Effects similar to those resulting in this area, but greater or less in amount dependent upon the other concomitant conditions, may reasonably be expected in many other parts of the Red River valley, therefore it is well to give some forethought to the consideration of possible damages. Such drainage improvement is undoubtedly for the general benefit, for the greatest good of the greatest number, but it is unquestionably possible in some cases that such construction may work serious injury or hardship on landowners below or downstream from the improved territory. It is to be hoped that now by a decision of the highest court of the nation a precedent may be set for the determination of the legal responsibilities of such upper owners or agencies completing drainage work toward the owners below upon whom the burdens of flooding may have been transferred.

The region considered, shown in the accompanying map, is a



portion of North and South Dakota and Minnesota surrounding the point where the three states meet. The dividing line here between South Dakota and Minnesota, and between North Dakota and Minnesota, is Lake Traverse and its outlet stream the Bois des Sioux River which flows north to Breckenridge, Minnesota, and Wahpeton, North Dakota, where it enters the Red River of the North. The Red River comes from the east and is usually called the Ottertail River above its junction with the Bois des Sioux River at Breckenridge; from Wahpeton the Red River flows nearly due north 295 miles to Lake Winnipeg. The chief tributary of Lake Traverse is the Mustinka River, a stream entirely in Minnesota. The drainage ditching work considered in the suit has been in the valley of the Mustinka River. The lands in Dakota injured by flooding on account of which this suit was initiated border on Lake Traverse and on the Bois des Sioux River. The total areas claimed to have been damaged are, in North Dakota, slightly more than ten thousand acres, and in South Dakota about two thirds as much.

This summarized record of recent floods in the Bois des Sioux Valley is well substantiated by the evidence. In the fall of 1914 the valley lands were flooded to a limited extent near the river, but the flood waters receded during the late fall and winter so that presumably Lake Traverse was at normal level in the early spring of 1915. In the early summer of 1915 the water again rose, covered nearly the whole acreage specified in North and South Dakota and totally destroyed the crops. (Of course also a narrow strip on the eastern side, in Minnesota, was flooded; but on that side the ground rises in a narrower width.) The inundation continued, in lesser degree, thru the summer and fall. In the early spring of 1916 there was a repetition of the flooding, which reached in early April an extent slightly greater than the previous summer; the water continued on the land so late into the season as to make agricultural use that year impossible, and the resulting condition of the land added greatly to the cost of cultivation the following year. Included in the area was the town of White Rock, South Dakota, the county seat of Roberts County, which was greatly inconvenienced; for several days or weeks a visit to the stores or residences of nearly half of the town, or attendance at school, was possible only with the help of boats or high rubber boots. The total damage resulting from these floods, including loss of crops, additional expenses, and impairment of land values, in the two Dakotas is estimated by the claimants as \$1,000,000 or thereabouts. The cause of this flooding is of course a question at issue; the defendant



asserts, and the complainant denies, that comparable floods occurred twenty to forty years ago, before the artificial ditching was in effect.

Lake Traverse constitutes a natural detaining basin or reservoir, whose outlet is the Bois des Sioux River. The channel capacity of the Bois des Sioux River in its natural condition is small; its upper portion is only a few rods wide, and two to four feet in depth below the adjoining prairies. Any considerable excess supply forces it to overflow the level land on each side, but ordinarily it receives its supply from Lake Traverse in naturally regulated, fairly equalized quantities without any large maximums. For the area of Lake Traverse (including its lower partly separated portions known as Club House and Mud Lakes) is from twenty to thirty square miles at ordinary stages, low to high; thus it requires a great accumulated volume of excess inflow to raise the lake high enough to make its outflow correspondingly large. Lake Traverse receives a large fraction of its inflow likewise in daily medium quantities long extended, rather than in sudden brief floods, for its chief tributary, the Mustinka River, was not under natural conditions of the type to bring water quickly.

The watershed of the Mustinka River, as shown by the map, has topography of two different types. The upper, eastern portion is in a terminal moraine region, hilly and broken with steep slopes, off from which the water flows quickly unless where intercepted and delayed in the many small lakes interspersed in pockets among the hills; it was not claimed in the suit that enough ditching had been done in the moraine zone to materially affect the quantity of stream flow or its rate or distribution thru the season.

After reaching the boundary of the moraine zone, the stream channels meander westwardly across the prairie. The three main branches, termed the Upper Mustinka, Five Mile Creek, and Twelve Mile Creek (which comes from the south) unite in an area now denominated the "confluence", which is about ten miles northeast of Wheaton, Minnesota, and about seventeen miles in a bee line from the mouth of the Mustinka River in Lake Traverse. At some points these branches or the main stream below the "confluence" had originally very inadequate channels, scarcely more than inconspicuous hollows in the prairie a few inches or foot or two deep, winding along thru the grass and weeds; these inevitably overflowed during wet seasons. If the water thus came to stand in large acreage on the prairie a considerable fraction of it evaporated and never reached the outlet; the remainder ran off more gradually,

in much less daily quantities thru a longer period, than if the natural channels had been adequate to carry the water quickly thru the prairie to Lake Traverse without any delay or detention. Meanwhile the outlet stream from Lake Traverse (the Bois des Sioux River) with its admittedly inadequate channel was continuously carrying away water from the lake. If the total annual inflow into the lake were spread out thru a sufficiently long time, the daily excess over outflow was not great enough to raise the lake and its outflowing stream to an injuriously high level.

General settlement of the prairie portion of the Mustinka valley occurred thirty-five to forty years ago; the first large drainage ditch there was finished in 1896; during the last ten years there have been almost every year many miles of extensions until now the whole region is gridironed with large ditches at intervals of only a few miles. It is the argument of Minnesota, the defendant in this case, that the flow of water off the land is not appreciably accelerated nor its volume increased by these ditches, but that the lands of the confluence area and other portions of the Mustinka valley are still flooded, inundated or waterlogged in wet seasons practically as much as tho the ditches did not exist, hence that no considerable burden has been cast on the lower landowners by excess flooding resulting from the artificial conditions above. But this contention appears *prima facie* absurd, when attention is called to the fact that, except in occasional minor details, these ditches have been constructed according to the plans and designs of the most competent drainage engineers of the state for the purpose of removing excess water from the Mustinka valley lands and rendering them with certainty suitable for agriculture; and that the ditch system now existing was not built as a single project, but as separate projects in successive years on successive petitions of the land owners who had been by their own observations and experience led to believe that the ditches already constructed in the same county benefited the bordering lands, hence petitioned to be allowed to pay for similar construction adjoining their own lands.

Two ditches which in particular afforded the convenient basis for the suit were built under appropriations made specifically for that purpose by the Minnesota legislatures of 1893 and 1895, and of 1911 and 1915 respectively. The first of these was the "Old Mustinka Ditch," built in 1894-96, from section 20, T. 128, R. 44 (near the village of Norcross) in Grant County, westwardly about seven miles beside or near the Upper Mustinka River to the corner of sections 18 and 19 in T. 128, R. 45, Traverse County. This

ditch had bottom width of about fifteen feet and depth five to six feet, and terminates in the "confluence" region. The other is the Mustinka extension, or the "cut-off" and the "rectified channel" which were built in 1912 to 1915. The cut-off runs due west from the lower end of the original Mustinka ditch about two and a half miles, cutting across a long tortuous loop or detour of the natural river to the north which loop is more than seven miles long; the bottom width of the cut-off ditch is 25 feet, and depth 10 to 12 feet. Thence the "rectified channel" runs down the general course of the natural channel of the main river about thirteen miles, in effect to the mouth of the river, altho really stopping where the natural channel was found deep, about two miles from the lake. This rectified channel is several feet deeper below the prairie than the old channel at any point, and has now a total depth of ten to fourteen feet and bottom width of about forty feet; it straightens the channel and cuts off enough small loops and bends to shorten the total distance from the lower end of the "cut-off" to the lake by three miles or thereabouts. All the many other ditches of the nearly complete gridiron now existing, tho built under state laws by county or drainage district without state appropriation, outlet thro these state ditches and would be of comparatively small effect if lacking outlet.

The outlet into the Bois des Sioux River of Lake Traverse is at the extreme lower end (north end) of Lake Traverse, or rather at the lower end of the series of smaller lakes which at flood time appear to be an almost continuous sheet with Lake Traverse, and is nine miles north of the mouth of the Mustinka River, two miles south of White Rock, and three miles south of the South Dakota-North Dakota state line. Thence the Bois des Sioux River flows northerly, passing Fairmount, North Dakota, eight miles north of the state line, receiving from the east the Rabbit River twelve miles north, and discharging into the Ottertail River between Breckenridge and Wahpeton twenty-three miles north of the state line. If Lake Traverse rises only one or two feet above its normal level, the outflow thereupon becomes greater than the shallow channel below can carry off, and the water spreads out over the adjoining prairies. At White Rock the width of the tract liable to such injury is about three miles, narrowing to one and a half miles at Fairmount, and terminating near the mouth of the Rabbit River. Below that point the channel is cut deeper thru the prairie, so that no flood less than the most extraordinary would be able there to surpass its banks; but the channel is narrow with limited capacity,



and so perhaps throttles the flow from above when that is great enough to flood the prairie lands above. After the Ottertail River is reached, the channel is many times larger.

The elevations in feet above sea-level at different points, and the intervening distances in miles, are approximately these:

Boundaries of Mustinka drainage area, elevation 1100 to 1250 feet.

Distance to "confluence" of Upper Mustinka, Five Mile, and Twelve Mile Creeks, 20 to 40 miles; upper end of "cut-off" ditch, low water elevation 992 feet; highest stage of 1916, about 1002.

Distance to C. M. & St. P. Railway bridge near Wheaton, 10 miles; elevation, low water in improved channel, 977; highest stage of 1916, 992.

Distance to mouth of Mustinka, Lake Traverse, 8 miles; elevation, ordinary low water, 973; highest reported stage, 977.

Distance to Fairmount, 20 miles; elevation, ordinary low water, 964; highest stage of 1916, 971.

Distance to mouth of Rabbit River, 4 miles; elevation, ordinary low water, 959.

Distance to Wahpeton, 11 miles; elevation, ordinary low water, 947.

Distance along Red River, Wahpeton to Fargo, 45 miles; elevation, ordinary low water, 870.

Fargo to Pembina, 150 miles; elevation, ordinary low water, 750.

Pembina to Lake Winnipeg, 100 miles; elevation, ordinary low water, 710 feet.

If an attempt is made to determine the drainage areas by comparison of the conflicting maps submitted at the hearings, some of which are evidently in error in some details, these results are obtained:

Upper Mustinka River.....	250 square miles
Five Mile Creek.....	150
Twelve Mile Creek.....	300
Total above "confluence".....	700
Additional above Wheaton, railway.....	70
Total above railway (C. M. & St. P.).....	770
Additional above mouth of river.....	100
Total Mustinka River drainage.....	870
Additional into Lake Traverse.....	430
Total, Lake Traverse drainage area.....	1300

Additional above Fairmont.....	150	
Total above Fairmont.....		1450
Additional above entrance of Rabbit River.....	20	
Total, Bois des Sioux drainage area above Rabbit River .....		1470
Rabbit River drainage area, about 300 square miles.		

The annual rainfall for the Mustinka River drainage area, as determined by a weighted average (isohyetal mean) of the records from the date of their establishment thru 1916 of the Weather Bureau stations at Ashby, Alexandria, Morris, Beardsley, Fergus Falls, Campbell, Minn., and Wahpeton, N. D., is 23.8 inches. For the Bois des Sioux River drainage area taken as a whole the average is assumed to be slightly smaller (tho the difference would be less than a half-inch) because in this region the rainfall is progressively less westwardly, and the Mustinka area is the eastern portion of the whole Bois des Sioux area. The years 1914, 1915, and 1916 were all wet years, with averages for the Mustinka area of 29.6, 28.5 and 29.9 inches respectively; this is a total excess more than the normal of 16 inches for the three-year period. The records show no cloudbursts or unusually violent storms in a single day or week of that three-year period sufficient in amount to cause unusual floods, but only to cause a large and fairly regular flow.

The actual quantity of water passing down these streams during past periods of flood is not known with satisfactory precision, for unfortunately no regular gaging stations for determination of discharge were ever maintained on any of them until recently. The Mustinka River near Wheaton has been kept under daily record according to the standard usual methods of the U. S. Geological Survey from June, 1916, to June, 1917, and from June, 1919, to date, and the Bois des Sioux River near Fairmount from April, 1919, to date. Maximum highwater elevations of previous years are known at many points. Other similar streams farther north and south in the Red River and Minnesota River valleys have been continuously recorded by the U. S. Geological Survey for many years (fifteen to twenty years at several of the stations, and almost forty years at one). Hence by proper comparisons it is possible to deduce run-off figures for the Mustinka and Bois des Sioux that undoubtedly are near the truth. Briefly stated, the average annual natural run-off from the Mustinka valley may be taken as one to two inches total for an ordinary year, and perhaps as much as four to five inches maximum for a very wet year. One inch annual run-off, if flowing uniformly thru the year, would give an average discharge of

about sixty cubic feet per second at the mouth of the Mustinka River.

The March, April, 1916, flood, which occurred after the artificial construction was in major part effective, brought a maximum flow past the C. M. & St. P. railway crossing at Wheaton of about 3500 cubic feet per second, and an average flow for the maximum ten-day period of 2500 cubic feet per second or thereabouts. It is assumed by the complainant's engineers from study of the channel capacities before improvement and all other factors that this is about double the amount of water that under former conditions, (i. e., before the ditching) could have passed down the Mustinka River to Lake Traverse in the same time consequent on the same meteorological conditions. If so, this artificial increase in flow would have been enough to raise Lake Traverse one foot to one and a half feet higher than it would have been raised then under natural conditions, and to cause the water along the Bois des Sioux River to rise nearly two feet higher than otherwise it would have done, thus covering vastly more land and for a longer period than would have resulted if there had been no modification of the original natural conditions. These figures, however, were strenuously contested by the engineers of the defendant, who endeavored to arrange the figures so as to show that the excess height in Lake Traverse and flooding along the Bois des Sioux River was only a fraction of an inch, or two to three inches at most, which would scarcely be sufficient ground for legal action.

The defendant's engineers explain that the floods occurred after a series of unusually wet years. They minimize in their argument the amount of flooding, and they insist that the excess rainfall, combined with some other minor causes for which the defendant was in no wise responsible, must take the entire blame for such floods as are admitted to have occurred. The contention of the complainant in regard to the effect on the Bois des Sioux lands of the artificial construction on the Mustinka, if summarized in one sentence, is this. *Whatever may be assumed for natural conditions, those of artificial creation have been superimposed upon the former features and have necessarily increased the flood conditions.* The amount of this superburden or excess flooding can in no possible manner be precisely mesured, but the complainant insists that, by every method of engineering reasoning properly applicable to the accepted records and authenticated evidence, the excess height of flooding must be deduced as being not less than one foot or thereabouts, and was perhaps more than that.



This suit was initiated in a bill presented early in 1917 by the state of North Dakota as complainant against the state of Minnesota, invoking the original jurisdiction of the United States Supreme Court. The Court referred the case to a Commissioner (Hon. Wallace B. Douglas, a member of the Minnesota Supreme Court in 1904) to take the evidence and report it. Hearings were held by the Commissioner at St. Paul and at several points in the Bois des Sioux valley in the fall of 1917 and the following winter, and the evidence of all the witnesses with some condensation was printed. The counsel on the two sides prepared and printed their briefs; all of this was presented to the Supreme Court, and the verbal arguments were made before the court by counsel on January 3 and 4, 1921. The decision of the court has not yet been rendered.

These lawyers were personally engaged in the case: For Dakota, Assistant Attorney General Harrison A. Bronson (who became a member of the North Dakota Supreme Court in 1919), M. H. Boutelle of Minneapolis who made the argument before the Supreme Court, and I. C. Pinkney of Peoria, Ill. For Minnesota, Assistant Attorney Generals John E. Palmer who conducted all the examination of witnesses and presented the argument on facts to the Supreme Court, and Egbert S. Oakley who presented the argument on law. The engineers were these: For Minnesota, Frederic Bass (professor of municipal and sanitary engineering in the University of Minnesota) who took the entire responsibility for the technical theory of the defense, and O. B. Nelson of Minneapolis who carried thru the region in dispute an elaborate system of topographical surveys conceded by both sides to be correct. For North Dakota, three engineers defended the complainant's theory independently, with only minor differences in opinion and judgment; George A. Ralph of St. Paul who was the state drainage engineer of Minnesota from 1900 to 1913; Francis C. Shenhon of Minneapolis who was dean of engineering of the University of Minnesota from 1909 to 1917 and has a national reputation as a hydraulic engineer; E. F. Chandler (professor of civil engineering in the University of North Dakota) who was in court thru the examination of all the technical witnesses and thru the arguments at Washington. Other engineers gave evidence concerning certain features of the case, and a great number of witnesses appeared to speak on all the non-technical facts upon which the suit depends.

There are three distinct divisions of the subject. The first division is an essential prerequisite to the other two, and includes the

purely legal questions appertaining to the jurisdiction of the court, character of the suit, and nature of the remedy.

The only previous case comparable to this is *Kansas vs. Colorado*, 206 U. S. 46, argued in December, 1906, which was a more elaborate continuation of 185 U. S. 125 between the same parties argued in February, 1902. In that case, Kansas sought to enjoin the diversion by Colorado of the water of the Arkansas River, which rises in Colorado and flows thence thru Kansas greatly benefiting the agricultural interests of Kansas by its subsurface flow under the valley lands. The state of Colorado and its citizens and corporations were diverting vast quantities of water for use in irrigation, but were also storing considerable quantities at flood times in reservoirs for release in the dry season. The water laws of the two states were of opposite character, as Kansas held to the common-law rule of riparian rights, and Colorado to the doctrine of public ownership of flowing water and priority of appropriation to beneficial use; these two principles appeared irreconcilable and it was questioned whether the U. S. Supreme Court has authority to set aside the system used by either state for the control of water within its own boundaries. Furthermore Colorado denied that it was diminishing the value of the river and the quantity of underflow in such manner as to be a substantial detriment to the inhabitants of Kansas. In that case, the decision appears to establish clearly the jurisdiction and authority of the Supreme Court in such circumstances; by reason of the intricacy of the subject and the lack of sufficient proof that there had been such serious depletion in Colorado of the Arkansas River as to destroy the equitable apportionment between the two states of benefits resulting from the flow of the river, the case was however finally dismissed by the court without prejudice to the right of the plaintiff to institute new proceedings whenever materially injurious depletion could be proved.

In the *Dakota-Minnesota* case the complaint is not based on alleged depletion of the river or of its underflow, but upon unwarranted increase in flow at the flood season which places an excess burden on the lands below. This excess burden the complaint alleges to be axiomatic, but the defendant denies it or belittles its amount. Dakota pleads that these results constitute the commission of a trespass by Minnesota on the domain of Dakota, and Dakota asks for an injunction restraining the further continuance of the trespass and an assessment of the damages already sustained. At first glance this might be thought the same as asking for an injunction against inclement weather and heavy storms; but the real purpose

is really seen as being to enjoin Minnesota from passing along to Dakota the flood waters in greater quantities or more suddenly than they would have come if nature's methods had not been changed by the works of man built under state authority. It is not necessary to obliterate the drainage ditches and abandon all drainage improvement in Minnesota, if Minnesota can provide any suitable and adequate remedy for the resulting unnatural injury to the lands below.

As a matter of fact—tho the technicalities of conflicting state and interstate laws prevented its mention in the evidence or pleadings—there is a very suitable remedy which would forefend damage from the Bois des Sioux lands, namely, to dredge the Bois des Sioux River so as to make it a deep straight canal (like the Mustinka River) from Lake Traverse to its mouth at Wahpeton. Below Wahpeton the Red River channel is very greatly larger; nevertheless there would be increased trouble there in the most unfavorable years, and the Mustinka troubles transferred to the Bois des Sioux would now have been again transferred to the Red River. But if along with the river-dredging work Lake Traverse should be adapted as a detaining reservoir by the construction of controlling gates at its outlet and perhaps some low dikes, by this combination plan the stream flow of even the most unfavorable season could then be handled without increased injury to anyone anywhere, and indeed to the general benefit. The only objection is the inevitably great expense of this construction, the cost of which would depend upon the scale and completeness of the improvement or flood-prevention project. This whole project was studied in detail in the work of the field parties sent out by the Bureau of Drainage Investigations of the U. S. Department of Agriculture in 1918 and 1919 in charge of P. T. Simons, and is included and recommended in their general report on their Red River Valley drainage survey which is now in process of publication.

The legal questions of jurisdiction and authority, and of possible remedy if injury is proved, having been settled, the second division of the subject is concerned with its engineering aspect, the technical features. Did the ditch construction above cause floods below, and if so, how great? Will the artificial construction above cause inevitably or probably a repetition of floods such as would not have occurred with undisturbed conditions, and if so, how soon or how often? On these questions if the Supreme Court shall endorse and accept either the general theory of the experts for the complaint or of those for the defense, such theory will then appear to be the legally accepted scientific theory in this matter, and will have weight



in forming opinions on the legal responsibility and degree of damage in any similar future cases arising here or in adjoining regions of the northern prairie country. With the increase and extension of drainage work thru the country such questions are certain to come forward often in the future, altho local conditions cannot be identical in every case and many details of the general principles will be thereby modified.

The third division of the case, if the defendant can legally be held liable and if the cause for the injury is held to be proved, is the amount of the financial damage. South Dakota has pending against Minnesota a case identical with that of North Dakota except that the lands actually damaged are located in the other state. It has been stipulated that the evidence already taken in the North Dakota suit shall hold also for South Dakota on the first and second divisions, so that, if North Dakota shall secure a successful result, South Dakota will need in its suit merely to itemize the location of its lands injured and amount of damage.

The evidence in this suit, after final condensation, fills nearly 2200 printed pages; the briefs of the lawyers are each about 180 printed pages; each side was allowed two hours time for the verbal argument before the Supreme Court. Space here will not permit even the least reference to many of the important or interesting features of the case, which in some phases is necessarily very involved; in the actual hearings it was complicated by the conflicting evidence of the expert and non-expert opposing witnesses, and was further obscured by the camouflage of irrelevant detail sometimes dragged in during cross-examination, so that on some issues it is impossible to reach a fair and unprejudiced opinion from the evidence without very careful study. Of the many technical arguments brought forward by one side or the other, some ought to be accepted without hesitation by any person who has observed intelligently for a reasonable period of years the habits of stream flow in this northern prairie region; on others there may properly and fairly be a wide difference of opinion. This short description has not attempted to cover the legal features of the case nor more than a few of the engineering details, but merely to indicate in general terms the cause and some of its outstanding features, its basis, its chief contentions, and its possible results.

# Accountability

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One who makes a comparative study of homologous microscopic sections from the brain tissue of a rabbit, a dog, a monkey, and a man, cannot fail to be impressed by the remarkable uniformity seen in the character of cellular endowment. The particular varieties of cells found in a chosen section from the brain of one animal will be found in an homologous section from the brain of any of the other animals; especially is this true of those more primitive brain areas chiefly concerned with the elementary functions of sensations and motor response. Equally impressive is the progressing complexity of interdendritic interlacement, which varies according to the evolutionary status of the animal; and this increase of the interdendritic branching is further seen to be accompanied with an absolute increase of neural tissue in those areas lying beyond the parts fundamentally concerned with sensory reception and motor response. Thus there arises the anatomical mechanism whereby the relatively undifferentiated sensory-motor reflex of the lower types of animals may, in the higher types, be modified by associated memories. The higher the animal in the evolutionary scale and in the scale of intelligence, the more extensive and intricate in nervous tissue are the anatomical endowments for associational modifications of the sensory-motor reflex.

What is true of a class of animals is true also of a species. The different races of men differ widely in their mental capacities. Intellectually the Australian bushman is nearer to the higher apes than to a Herbert Spencer. The bushman has a brain principally occupied with those sensory-motor reactions correlated with individual and racial persistence; his reflexes are chiefly those classed as inevitable, modified but slightly by culture or education. The educated Englishman, besides the more primitive endowments, has also a wealth of associations derived from language, education, and environment; and necessarily he has the cerebral equipment which his culture predicates.

But the European races show wide variations in cerebral endowment and in mental development. Comparative histological sections from homologous areas of different brains (*Homo*) indicate

that men are not equally endowed with either convolitional completeness or interdendritic complexity. One may have a richer associational area than another, and thereby possess greater functional adaptability; a third may have more complete intergyral lines of communication, and be thereby endowed with definite mental advantages. This anatomical disparity is manifested by the ratio of neural elements in the area being studied, especially in the relative number of cells characteristic of that area, and in the richness of interlacing of the associating dendrites. These histological findings have been corroborated by clinical observations. In those who suffer from congenital mental deficiency (amentia), abnormalities are found in the development of the brain; the frontal lobes, especially, show defective development. In acquired idiocy (dementia), the frontal lobes frequently show destructive deterioration. If an educated person suffers from a brain disease affecting the posterior portion of the first and second temporal convolutions, he not only loses his power of appreciating the meaning of words but he also suffers great diminution of his mental powers because of the loss of the word concepts and connotations that make up so large a part of the mental life of the educated man. It can hardly be supposed that an Australian bushman, suffering from a similar lesion, would be so seriously handicapped in his intellectual life.

It is a commonplace observation that the children of a given family show marked variations in mental aptitudes. Are these children equally endowed mentally? There is no logical reason for thinking so; on the contrary, comparative neurology and Mendelian probability both indicate they would not be. Every child is born with a definite anatomical endowment, and "since no fresh neurones are formed during the life of an animal" (Bayliss), it follows inevitably that for that child there exist no possibilities outside its own particular inheritance; that "any new acquirement, in reflex or association, must be due to the formation of new connections between neurones already present" (Bayliss). If fairly normal, the child's educative capability is probably far beyond any training he will ever receive, especially along the lines of his particular aptitudes; but his range of possible acquirement is strictly limited by his anatomical endowment. If he be richly endowed in the temporal areas of his brain, he has the anatomical endowment for unusual appreciation of sounds and sound harmonies. If there be also a rich linking up of the temporal area with the areas dominating speech and language, and if the many possible associations be adequately developed, the child might easily become an expert linguist; yet no



amount of training could make the child into a linguist if there be lacking the anatomical endowment essential to linguistry. If the well-endowed temporal area be richly linked with the areas dominating concrete conceptivity, the child would probably have a keen appreciation of tonal values; and if also there were adequate associations with the areas dominating abstract conceptivity, the child would have a cerebral mechanism peculiarly adapted to his becoming an originator of musical compositions. Such potentiality might be profoundly modified by sundry intercalations; or a super-dominance of the areas of concrete conceptivity might markedly qualify the ensuing correlations; or, sadly enough, lack of opportunity for training and expression might easily keep the whole mechanism from properly functioning.

We recognize the fact of musical genius; we are also aware that not a few people possess no apparent cultivable capacity for musical appreciation; but we are slow to apprehend the underlying physical cause. The genius is a genius largely because he is in possession of an anatomical endowment that makes achievement possible; perhaps the dolt is a dolt chiefly because his cerebral inheritance is such only as to permit of dolthood.

Immediately posterior to that cerebral area having to do with the reception of sensations coming from the skin, muscles, tendons, and joints, is an area very intimately connected dendritically with its anterior neighbor. Because of this intimacy of relationship and interconnection, physiologists assume that this second cerebral area is an associational area concerned with the correlation, association, and appreciation of the various body senses; and so it is called the somaesthetic area. If this area be relatively thin, then it may be logically supposed that the possessing individual is a natural stoic, largely undisturbed by the multiform appeal of the body senses; few would be the sensuous solicitations that would "give his pulse a wallop." If his childhood training be essentially Calvinistic, his mature outlook on life will be temperamentally austere and unsympathetic. On the other hand, if an individual has inherited a somaesthetic area richly endowed with intercellular connections he will quite naturally be much more keenly appreciative of all afferent stimuli; his very aesthesia will color deeply all his judgments, and these may not be unwholesome if his other cerebral endowments are adequate for compensatory adjustment; but if his sense appreciation be so strong as to dominate his mental outlook, then his physical activities may easily become antisocial; yet in the absence of suitably-developed inhibitions, such an individual must react inevitably to his physical

imperatives. Shall he be held responsible for his inheritance, or for the defect in his education? Ought not his inheritance to be more accurately evaluated, his inhibitions more carefully nurtured, and his education more adequately adapted? The imposition of restrictive inhibitions on adults, while undoubtedly necessary in the present development of society, is but a sorry substitute for the inculcation of intellectual inhibitions at and before adolescence.

There is on record the case of a laborer who was the victim of the penetration of the frontal lobe of his brain by an iron bar. The bar was extracted, and the laborer ultimately recovered tho he manifested an increasing nervous irritability. Physiologists ordinarily assume that the frontal lobes of the brain dominate the faculty of abstract conceptivity; if this be a correct assumption, then injury of the frontal lobes would produce symptoms varying with the normal functioning activity of those lobes. In the case of the laborer, the injury evoked few symptoms; so it may be assumed that this man had made little use of that portion of the brain dominating abstract reasoning. Were such an injury to overtake a man like Herbert Spencer, the resulting symptoms would assumedly be very severe. But the average man, rich or poor, indulges but infrequently in abstract reasoning; by necessity, or necessitous choice, his life is largely lived in a field of compounded integrated perception and concrete conception. Yet neither philosopher nor peasant chose his cellular inheritance or his developmental environment; to this extent, at least, he is the helpless victim of circumstance. Perhaps there is no limit to his educative possibilities, but even his education is not of his choosing or direction. Shall he, then, be held solely accountable? Is not our present practise of social accountability due to the persistence of that old ecclesiastical fallacy that man is a free moral agent? Man is not morally or physically free; he is hedged around and about by an anatomical constitution which was determined before his birth, and from whose limitations he cannot escape. As Siddartha indicated, evolution may be but a struggle toward light; but freedom for the ego has not yet been attained.

And there are other limitations that sharply determine conduct, besides the relative endowment of the neural constitution. Scattered about the body are small masses of secreting tissue whose products, entering the blood stream, profoundly modify varying tissue metabolism. These modifications take place quite regardless of any pragmatic postulates fondly entertained by the individual; in fact, the quality of assumed pragmatism is often but an effect of relative endocrine activity.

An infant whose thyroid gland is markedly underactive remains stunted and underdeveloped, ugly in appearance, idiotic in mentality. If the infant receives no treatment, it ultimately attains adult age while remaining scarcely more than an infant in size, appearance, and mentality. Yet let the infant early be fed desiccated thyroid tissue, and, *mirabile dictu*, in a few months the quondam idiot becomes a bright, happy, well-formed child, necessarily somewhat handicapped by its months or years of retardation, but otherwise strong and apparently normal. Was the child's relative idiocy moral or physical? Not so many centuries ago in England the demented were held accountable for their several misdeeds.

Whenever there is a marked diminution of the thyroid secretion in adults the symptoms ensuing are those of definite physical and mental retrogression. The afflicted patient appears yellow, and her skin looks waxy; the face, neck, and hands become swollen and puffy; speech is hesitant; cerebration is faltering, and all mental faculties become blunted and subnormal. But if to this suffering individual thyroid tissue be given, she gradually recovers her normal physical and mental health. But assuming that during the onset of her illness the gradually-developing moroseness led her into anti-social activities, would society hold her culpable? Who will draw the line?

Sometimes in adults the thyroid becomes over-active; and the patient shows, among other symptoms, a marked acceleration and palpitation of the heart, a sequent anxiety, and an increasing neurasthenia. Naturally the patient becomes more excitable and irritable; and the likelihood of nervous explosions and brainstorms becomes greatly increased; but under these circumstances, the patient is suffering from physical stress, not moral obliquity. The obviousness of such a case bespeaks social leniency at once; but there are cases where the physical stress is as imperative though the outward signs are not so obtrusive.

Overactivity in youth of the ectodermal portion of the pituitary leads to an overgrowth of the long bones of the body, resulting in "gigantism"; this is usually accompanied by a relative underdevelopment of mentality. If this ductless gland is overactive in adult life, there ensues a new and monstrous development of the bones of the face, hands, and feet, with a slow clouding of the mental faculties. If the same portion of this gland is *underactive* in childhood there usually is produced a sharp mental and sexual precocity; and the child, shot prematurely into adolescence, develops stresses inadequately directed by any compensating intelligence. A similar acceleration



of pubertal changes may follow from a too early retrogression of the thymus,—another endocrine body.

Since early times it has been known that the removal from either sex of the gonads entirely prevented the development of adolescent characteristics,—tended in fact to bring about a neuter condition in which the victim approximated an intermediate state unlike the normal of either sex. Some distressing results in the earlier history of gynecologic surgery, wherein total extirpation of the gonads brought about an artificial and premature climacteric, indicated that the gonads possess a like controlling influence in the *retention* of definite secondary sex characteristics; women thus deprived of their gonads tended rather rapidly toward the neuter condition both in mental and physical attributes; yet it was later found that these lamentable results could be partially or wholly prevented by a successful transplantation under the skin, or within the abdomen, of a small amount of this same glandular tissue.

It has been found experimentally that if a young male animal which has been deprived of its gonads be supplied with a successful transplant of a gonad from another male, the animal will develop complete secondary sexual characteristics; and later, if the transplanted gonad be examined, the spermatogenic elements will be found to have completely disappeared, whereas the interstitial elements of the gonad will be found to have increased in both size and number. This indicates that the interstitial elements of the gonad are the ones controlling both the development and retention of secondary sexual characteristics. If a young male guinea-pig which has been deprived of its gonads be furnished a transplant of a female gonad of the same species, it will develop secondary female characteristics. If a spayed pullet be supplied with a successful transplant of a rooster's gonad, she will develop a rooster's plumage, wattles, comb, crow and arrogance; an experiment that illustrates how profound must be the influence the gonads exert on the physical and mental life of the individual.

It is extremely probable that the interstitial elements of the gonads vary greatly in relative activity among men, and among races of men, making some more arrogant and combative than they otherwise would be, others more quiet and self-controlled. These special cells begin their activity at adolescence, presumably as a result of the removal of thymus inhibition; it is well known what extensive physical and mental alterations quickly ensue in either sex. The extent of the alteration may vary directly with the degree of activity that the interstitial cells then manifest; if the activity is subnormal,

the secondary sexual characteristics may be late in appearing, may show a relatively-subnormal type, or may produce normality in one set of attributes at the expense of some other; if the potentiating secretion be hypernormal in quantity or quality, it may bring on the phenomena of adolescence with undue rapidity, it may give exaggerated importance to the new phenomena, or it may emphasize some attributes at the relative expense of others. Comparison of the subnormal type with the supernormal discloses wide variations in those stresses of existence associated with race perpetuation. Circumstances that to the first type are matters of relative indifference may well endanger the moral foundations of the second type. If an individual possesses strongly-active interstitial cells, has a highly-endowed somæsthetic area, and a not well-developed moral sense, the path of personal and social rectitude is for him going to be an extremely difficult one to follow. Yet the individual may not reasonably be held responsible for the relative efficiency of his interstitial cells, for the complexity of his dendritic interlacements, or for the quality and grade of his mental or moral education.

Thus, again, accountability devolves on society. Apparently society is not yet able to undertake the great emprise pointed out by genetics, but it may not be absolved from just criticism if it leaves unutilized the possibilities of the present. The predilections of an individual may be ascertained, not by the gross suggestivism of the Freudian school, but by scientific psychological investigation; the strong points and the weaknesses of an individual may be uncovered and suitably directed; education, both moral and mental, may be adapted to particular needs. At the same time, the multitudinous solicitations to debasement now rampant in society may be largely eliminated, and our laws of reprisal and punishment be changed into laws of prevention and development. Certainly, society ought to be more tolerant toward the victims of circumstances, and less tolerant of all that make rectitude difficult.

The infant comes into the world with traces on its nervous organization of all the great experiences thru which its ancestral race has passed. Later, some of these traces may appear in the form of instinctive urgings, emotional reflexes, primitive passions. The actions of any individual have a deeper motivation than he may ever know or than society may ever recognize; yet these echoes from out the racial past largely determine conduct, and are vital factors in the true weighing of accountability.

# The Problem of Prospecting for Coal in Glaciated Areas

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Continental glaciation in North America has added seriously to the cost of prospecting and materially retarded the development of available coals. In general this is due to the cover of variable thickness laid down over the older rocks, thus concealing possible outcrops and adding to the difficulty of discovery. In addition to coal areas,



(COURTESY OF NORTH DAKOTA GEOLOGICAL SURVEY.)

Figure 1. Map of North America During the Maximum Advance of the glacial ice. By T. C. Chamberlin.



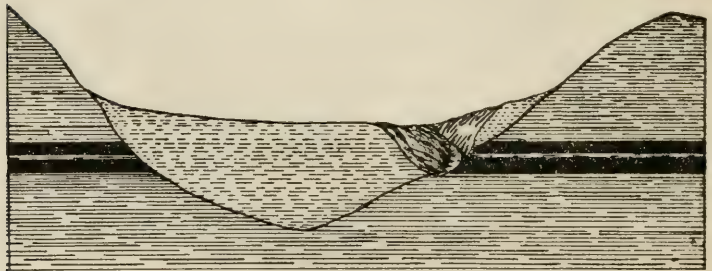
areas favorable for iron ores, gas and oil, clays, as well as some road and building materials have been thus concealed.

Out of a total of approximately 497,000 square miles of the United States that is underlain with coal, nearly 99,000 or nearly one-fifth lies beneath the glaciated area. In North Dakota about 32,000 square miles are underlain with coal and nearly 20,000 square miles lie within the glaciated portion.\*

The salient features of the problem are:

- I. The distribution of coal beds that may be inferred from a study of preglacial and postglacial topography.
  - a. With coal outcrops before glaciation.
  - b. With no coal outcrops before glaciation.
- II. Delimiting distribution where preglacial topography is completely obliterated.
- III. Weathering and burning of coals and interpretation of preglacial effects.

It is not to be inferred that in all portions included as glaciated are the bed rocks completely concealed over large areas, as incision by streams has often exposed coal beds, especially in peripheral areas. It is common in prospecting from outcrops to work back from such peripheral areas where the drift is thin to areas where exposures are lacking. Such an area is well illustrated in the Altamont Moraine



(COURTESY OF NORTH DAKOTA GEOLOGICAL SURVEY.)

Figure 2. A debris-filled valley in which a recent valley is being cut re-exposing a bed of coal.

area of northern and central North Dakota. Structure traced back in such a manner and even checked with occasional well or boring records is often adequate to a fair assurance of the absence or presence of coal.

\*The estimates are compiled from the map of the coal fields of the United States by M. R. Campbell. Published by the U. S. Geological Survey, 1908. Also from publications of the North Dakota Geological Survey.

The relation of preglacial to postglacial topography is often a valuable key to distribution. Where preglacial relief is large enough to give exposures and where the mantle of drift is thin enough for the relief to show thru, outcrops of coal beneath the drift on hill-sides are often marked by seeps. In arid or semi-arid regions the effect is striking, as the modicum of moisture directed by the more porous coals is often sufficient to nurture growths of grass or shrubs of a deeper tint of green or even patches of scrubby timber. If the beds are horizontal these lines of green on the slopes are visible and conspicuous for long distances. Porous sandstone may occasionally direct the moisture in a similar way, especially when underlain with clay or shale. These effects are of course lacking where the coals lie below the levels of valleys.

Lignite beds have burned out extensively and over large areas in North Dakota. In the United States burning is largely restricted to lignite and sub-bituminous coal. Where such burning takes place the overlying materials are often baked or fused to a brick red color. It is rare that underlying beds are baked to any depth, consequently the lower limit of clinker may be assumed to be essentially in a plane with the unburned coal, allowing for any surface creep or slumping.

The size of the coal bed is roughly proportional to the amount of clinker. Except under very favorable conditions lignite beds less than 4 feet in thickness do not burn. A 10 or 12 foot coal bed will often give clinker beds 20 to 30 feet in thickness. Glacial till where it lies over the coal may be baked as may be found along the tops of the bluffs bordering the Missouri River about three miles east of Hofflund, Williams County, North Dakota.

Such burning proceeds from the outcrop and as the coal burns the overburden slumps, opening cracks which admit air essential to combustion. The fire is put out when the overburden becomes heavy enough that cracks are filled and the fire smothered.

Seeps in down-dip locations are often sufficient to prevent burning.

Gophers, badgers, and other burrowing animals often bring the "blossom" or weathered coal to the surface even when but little other evidence of coal may be present. The aid of these small prospectors should not be ignored.

Since most outcrops of coal are along the borders of stream valleys and banks where normal wash has exposed them, it is common to find the actual position of the coal bed in place very difficult to locate on account of slumps and creep. The Fort Union formation in which the lignite is found is made up in great part of uncemented

and unconsolidated materials and hence slumps badly. Driving entries to open a coal bed from the side of banks should be directed by drill records often easily and cheaply gotten to avoid the discrepancy of position of the coal bed and the slumping material.



(COURTESY OF NORTH DAKOTA GEOLOGICAL SURVEY.)

Figure 3. Slumping has lowered the outcrop. Expensive surface equipment should not be built until drill records show the exact position of the coal.

Where coal has been incised by streams and subsequently the valleys completely filled with drift, preglacial topography is obliterated and the discovery of coal is often accidental. In North Dakota lignite is not uncommonly the important water-bearing horizon and is thus discovered in drilling for water. Later, the search may become more deliberate both for coal and water and knowledge of underground conditions is of greatest importance. It will be noted that only in cases where the drift is very thin is it possible to delimit coal areas with any certainty without the use of the drill. In all other cases the drill is indispensable.

It is upon the interpretation of drill records and the experience gained by subsequent development and checking up on them that our knowledge has grown. It will be the purpose here to discuss briefly some of the problems that grow out of this method together with some interpretations of typical records.

The types of drills vary within wide limits. One of the simplest and least expensive is the pipe or bar with the ordinary spud bit, with a valve bottom bailer to remove the sludge. These are attached to ropes or cables operated by hand, with or without a spring pole. Similar in plan and operation but with a wider latitude of size of



hole and depth is the power operated cable solid-tool rig. Both the above types bring up the cuttings as small fragments more or less contaminated with rocks from higher in the hole. Under such conditions accurate interpretation of the nature and kind of rock is difficult. The coal is often so contaminated that an analysis is impossible or unreliable, while conditions of roof and bottom are often impossible of interpretation.

Much superior to the churn type of drill is some form of the rotary drill that removes a core which in turn preserves a continuous record of all rocks penetrated. Among the most important of these machines may be mentioned the following:

1. A calyx or shoe of steel with saw teeth which screws on to the end of the driving pipe, downward thru which water is circulated and which removes the cuttings by the upward current of water in the space between the drive pipe and hole. Since the steel teeth do the cutting the material penetrated is limited to soft material such as poorly cemented sandstone, shale, clay, coal or soft limestone.

2. A second machine similar to the above by which the cutting is done by steel balls or other abrading material loosely placed between the soft steel hollow drill and the rock penetrated. Rather slower than the first but capable of drilling thru harder material such as dense sandstone dolomite or even granite.

3. The diamond drill in which diamonds are the abrasive, being set in the soft iron shoe and capable of drilling the hardest material with considerable speed. Usually the simplest and most rapid but the initial cost is high.

Drilling may be done only for determining the presence or absence of coal, in which case single holes may be spaced on each quarter section, half section, or even section of land. This drilling is sometimes done with a cable rig. Holes should be carried to the depth of commercial recovery and a careful log kept of the formations as well as samples of all rocks penetrated.

Subsequently intensive drilling is undertaken with core drills as a preliminary to the development of a property. The holes are spaced according to a plan of which a large scale map is usually made. A common system is to lay out the holes on a gridiron pattern with holes spaced 330, 500, 660, or 1000 feet apart. The following data are recorded for each hole:

1. Elevation of top; determined with instrument.
2. Depth to top of coal.

3. Thickness of coal; also nature of coal and impurities.

4. Character and position of certain critical formations such as water sands, roof over coal, material underlying the coal, etc.

From 1, 2, and 3, a distribution and structural contour map may be made which will indicate the location of shaft or opening, direction and position of main adits or entries and direction of drainage.

#### QUALITY OF COALS AND GLACIATION

Glaciation itself has probably had no direct effect on the quality of coals except the slight devolatilizing effect that pressure might exert, which in the aggregate would be small or negligible. It is in coals near outcrops either preglacial or postglacial that the most immediate effects are noted. These are mostly due to weathering or a progressive oxidation that tends toward a reduction in the heat units, a higher ash, and friable or crumbly coal constituting a series at one end of the unweathered coal, at the other an ashy residue.

Fragments of coal are not uncommon in the till which indicates an erosive activity on the part of the glacier in exposed localities.

The preponderance of shales and clays and lack of strong jointing in the Fort Union coal bearing formation in North Dakota has probably operated to reduce the average abrasive activity of the ice as there was a tendency to over-ride this smooth mass in a frozen condition, thus reducing the plucking activity of the ice, as compared to the active abrasion in more resistant rock that is subject to strong jointing. The transition from lignite to glacial drift in North Dakota is usually abrupt where erosion of the glacier was active or less commonly the lignite grades from unweathered coal thru softer weathered coal to the drift itself. No evidence of any bodies of lignite of any size being moved has been noted. In rather interesting contrast is a case found by the writer in a strip pit at Carbon, Indiana, where the "block coals",—so called because of two sets of vertical joints that divide the coal into more or less cubical blocks of from a few cubic feet up to two or more cubic yards in volume—were so close to the active bottom of the glacier that several blocks were moved bodily and till thrust into the widened cracks between. The blocks of coal uncovered by the shovel had been removed by the miners, leaving the network of till filling in the bottom of the pit much as the mortar between bricks might be left by the removal of the bricks.

Apparently the nature of these "till veins" was not understood as the underground workings of an old mine were uncovered in the pit which showed several entries stopping at these veins on the as-

sumption possibly that a fault or clay filled channel had cut out the coal, when by removing a few inches of clay the coal might have been found again.



(COURTESY OF NORTH DAKOTA GEOLOGICAL SURVEY.)

Figure 4. The coal bed has been partially cut out by a valley which has been filled with glacial material.

The contact between coal and drift may often direct water downward so that large amounts of water may have to be handled. In such cases the softening of the coals is a signal to stop mining and leave sufficient coal as a wall to shut off the water.

Careful drilling and equally careful interpretation will often show the position and trend of old preglacial surfaces with a conse-

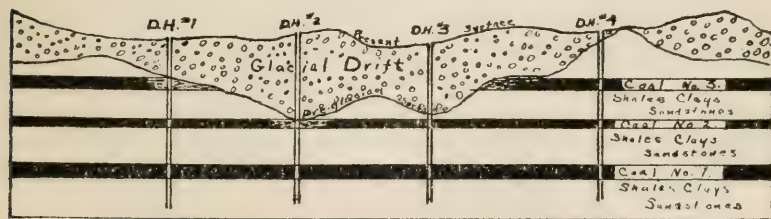


Figure 5. Cross section showing an old pre-glacial surface covered by a mantle of boulder clay of varying thickness. Drill hole (D. H.) No. 1 penetrates first a thickness of till or boulder clay and finds coal No. 3 soft or weathered, coal No.'s 2 and 1 good, as they were covered and escaped weathering. D. H. No. 2 finds coal No. 3 lacking, a mass of clinker perhaps at horizon of coal No. 2; coal No. 1 of good quality. D. H. No. 3 finds coal No. 3 lacking, coal No. 2 weathered and soft, coal No. 1 good quality. D. H. No. 4 finds all three coals of good quality.



quent saving of time and money in development of the mine. For example, such areas are usually indicated on a map as "soft coal" or "coal lacking" while a suitable legend may likewise indicate where glacial drift lies immediately over the coal.

An example of a series of drill logs plotted graphically and a suggested interpretation is shown in Figure 5. While hypothetical this case is drawn from relations very commonly found.

The problems of the drift covered coals are largely those of the position, delimitation and interpretation of the preglacial surface. Drilling carefully done and interpreted with care usually pays dividends a hundred fold in avoiding trouble in the subsequent development and operation of the mine.

# The Psychology of the Ouija Board

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One form of the ever-spreading occultism is the manipulation of the ouija board. This device consists of a flat surface bearing the letters of the alphabet, the ten numerals, "yes" in the upper left-hand corner, and "no" in the upper right, "good-bye" in the center below the numerals, and a small and generally heart-shaped structure, called the planchette, standing upon short, smooth legs. The two operators, seated with the board between them, place their fingers upon the planchette, which glides about and spells out the answers to questions put by an operator or another to Ouija or some other power supposed to control the performance. Ouija is a trade-mark name, and a combination formed from the French, "oui", meaning yes, and the German, "ja", meaning, likewise, yes, the suggestion being that it will answer in any language. The process is a form of automatic writing.

The following session with the ouija board was held January 5, 1920. We were seven, the sacred number. The planchette was operated by two experienced persons, a man and his wife. In the report of the proceedings, I have used a few fictitious names to conceal local identities. When the operators were comfortably seated and their fingers rested upon the planchette, Ouija was asked whether it would speak that evening. The reply was spelled out, "There are those among us who have no faith." The one at whom the message was specifically leveled hastened to assure Ouija that all present believed it capable of giving dependable information, and that any skepticism that might be harbored by anyone in the room pertained solely to the mystical explanation of the replies. Apparently placated Ouija answered the questions put to it. I took down both questions and answers at the time. The questions we asked were put to Ouija by the man operator.

*Question.* Have you any message for anyone in the room?

*Answer.* William.

Q. What is the message?

A. That operation, don't worry, it will be O. K.

Q. What operation?

A. That's doctor's business.

Q. When was the operation performed?

A. The fifth.

Q. Was it a man or a woman?

A. I said it was doctor's business.

Q. Will you let us know with doctor's permission,

A. I said, no.

Q. What time was the operation performed?

A. Before noon.

Q. Was it between eleven and twelve?

A. No.

Q. Was it between ten and eleven?

A. No.

Q. Was it between nine and ten?

A. Yes.

Q. Can you give name of hospital?

A. Guess it was St. Michael's.

Q. Are you guessing or do you know?

A. Guess.

Q. Have you any objections to telling whether it was a man or a woman?

A. A serious matter.

Q. Why are you not willing?

A. Too tight.

This part of the proceedings was thus brought to a close. The gentleman involved in the message is a physician. At my suggestion he left the room as soon as the attempt was made to pry into the operation. It is true that he did perform an operation of a serious nature that day. Ouija said the time was between nine and ten in the morning, but it really began shortly before nine and ended about ten-thirty. That the doctor has many operations and generally performs them the fore part of the morning was well-known to all in the room. The guess about the hospital was wrong.

I then requested the operator in charge to ask Ouija where I could find my bankbook which I had recently lost.

*Question.* Did he lose the bankbook?

*Answer.* Yes.

Q. Where did he lose it?

A. He will find it if he advertises.

Q. Can you tell us where it is?

A. No.

Q. Can you tell us why you don't know where it is?

A. He doubts my veracity.



Q. This looks like an easy way out of a predicament. Now where is it?

A. Get your wife to look thru your desk thoroly.

Q. Is the bankbook in his desk?

A. Yes.

Q. Any particular place in the desk?

A. Can't tell.

Q. How shall we go about to find it?

A. You mutt.

The desk was thoroly searched but the bankbook was not found. Further efforts as follows to get the desired infromation were unavailing.

Q. What desk do you mean?

A. He knows just as well as I do.

Q. Is there another desk?

A. Yes.

Q. Are you telling us the truth?

A. He knows enough of that stuff.

Q. Why advertise for the bankbook if it was in the desk?

A. Is there a desk at his school?

Q. Do you consider a table a desk?

A. No nonsense.

Q. Is there any message for anybody else?

A. Yes, Mary.

Q. Give the message.

A. Good little mother, be careful that you consider yourself too.

Q. Can you tell from whom this message is?

A. I lived in G..... F.....

Q. Who is talking to us?

A. Will you let me rest?

Q. Any message for anybody else?

A. You.

Q. From whom is the message?

A. Ouija.

Q. What is the message?

A. You are too abrupt.

Q. Is George's father living?

A. Yes.

Q. Can we get a message from him?

A. No.

As a matter of fact, George's father is dead. Next the family name of one of the women present was correctly given. The woman had been in the city only about five months and the operators of the ouija board stoutly maintained that neither had been introduced to her. Later, it developd that she had been present at an informal gathering of women in the neighborhood and had on that occasion personally met the woman operator. Several attempts were then made to reveal her given name but no name of the several spelled out was correct. I took the precaution of sending those who knew the name out of the room when these efforts began.

Several times Ouija was requested to tell whether it had any messages from the dead mentioned by name. In each case the message was of a general nature, such as "You have been good to my children," and "Every good work deserves its reward." At about ten o'clock the ouija board ordered the woman operator to go to bed and inquired whether we thought it could work all night. Persisting in their efforts to get more messages the operators were told to "go to blazes". Since the planchette had repeatedly spelled "good-bye" in response to several questions and was now becoming impatient and waxing profane the performance was ended.

Three types of explanations of the results have been suggested. The first is spiritualistic. The modern converts to spiritualism of more than national reputation range all the way from the late Ella Wheeler Wilcox, writer of popular literature, thru Sir Arthur Conan Doyle, author of detective stories, to Sir Oliver Lodge, distinguished English scientist. I read Conan Doyle's book, "The Vital Message" with mingled feelings of admiration and wonderment. As a specimen of his material, I quote the following paragraph:

"In a recent case I was called in to endeavor to check a very noisy entity which frequented an old house in which there were strong reasons to believe that crime had been committed, and also that the criminal was earth-bound. Names were given by the unhappy spirit which proved to be correct, and a cupboard was described, which was duly found, tho it had never before been suspected. On getting into touch with the spirit I endeavored to reason with it and to explain how selfish it was to cause misery to others in order to satisfy any feelings of revenge which it might have carried over from earth life. We then prayed for its welfare, exhorted it to rise higher, and received a very solemn assurance, tilted out at the table, that it would mend its ways. I have very gratifying reports that it has done so, and that all is now quiet in the old house."

Sir Oliver Lodge, whose researches and finding as a physicist

the world appreciates, has for many years been associated with the Society for Psychical Research. The problem of life beyond the grave has for many years fascinated him as attested by two volumes, "The Survival of Man" and "The Science of Immortality." The death of his soldier son, Raymond, upon the battlefield, has developed and controlled the previous interest. In his recent book, "Raymond", he espouses spiritualism, and gives what is to him a satisfactory reason for that which has passed from the hope of immortality into positive assurance.

Doubtless one of the most readable books on this subject is "Thy Son Liveth" written by an American Mother, who withholds her identity. She and her son Bob were amateur wireless operators. The war compelled the partial dismantlement of the wireless apparatus and claimed the son. One day, in war times, she received a wireless message from her son, announcing that he, together with many of his friends, had just been killed in battle, and assuring her of his conscious existence and continued devotion. Several wireless messages are followed by a long series of communications thru automatic writing by the mother. Whatever interpretation one may place upon these letters, he must indeed be hardened who is not moved by many a beautiful paragraph. The fundamental purpose of the messages is to let the mother and others who mourn know beyond the shadow of a doubt that those who have died live a higher and fuller life in the spirit world and that communication between them and the living is natural and easy. The supposed spirit is against professional mediums. "A place, a pencil, a pad of paper, and a heart crying the name of a boy, that's all that is necessary." The letters state that the bodies of those in the spirit world are tenuous like clouds. He lives in a camp with those of his regiment who were killed at the same time. Filmy clothing is worn, food of a refined sort is eaten. There are personal preferences, some sweet-hearting, much laughter without a sense of humor. It is a place where one carries out his own previous inclinations, this young man, for instance, continuing his experiments with the wireless. The spirits, altho as a rule unable to save their earthly comrades from death, comfort and sustain the wounded and guide the dead from earth to the spirit land. Now and then a crude touch jars upon the reader, as when the guides in the beyond are said to have wings on their feet like Hermes of Greek mythology, and dogs without any change in their bodies are permitted to run back and forth between this world and the next. I have given this little book so much



space because it illustrates automatic writing of which the manipulation of the ouija board is a type.

I have said this much about representative recent literature of spiritualism, in order to indicate the background from which many conclude that the mysterious messages of the ouija board are communications from the dead. To take up the broad question of spiritualism in any detail would carry us too far from what I conceive to be a more accurate, if not more simple, interpretation.

The second attempted explanation is in terms of telepathy. The assumption underlying the doctrine of telepathy is that the mind as we know it by its present manifestations may function apart from the nervous system. According to this theory one may read the thoughts of another at a distance and even control them without any sense-communication whatever. Physical phenomena, it is also asserted, no matter how far removed, may be perceived. Some robust apostles of telepathy claim that they can reveal the past, foretell future events, and even communicate with the dead. The fundamental contention is that the mind may receive and make impressions distinct from the senses.

It would be hard to find a single psychologist in good and regular standing in the United States who accepts the submitted evidence of telepathic occurrences as scientifically trustworthy. Most psychologists reduce the so-called telepathic marvels to a hopeless jumble of suggestion, unconscious perception, chance and coincidence, hallucination and illusions, defective observation, unintentional exaggeration, imagination, muscle-reading, and fraud. They insist that an unbroken chain of sensations intermediates every perception.

We come now to the third and probably the correct explanation of the ouija board.

First of all there should be taken into consideration the observable tendency to ignore or excuse the failures and mistakes of the ouija board. At the performances I have attended the failures have been more numerous and more important than the successes. Of course, the spiritualists account for wrong or unintelligible messages as the product of interrupting and intruding mischievous or malicious spirits. When reminded of the failures, the believer in telepathy intimates that lack of concentration of the mind and skepticism are responsible. That there is a touch of truth in his defense will appear later. The general tendency is to ignore or minimize the negative instances and to magnify the positive results, but the psychologist takes both into account as data.

Furthermore, the probability of chance and coincidence should not be overlooked. Many of the so-called cases of telepathy are reducible to these elements. One may refer to the findings of Dr. J. E. Coover who made an experimental study of the feeling of being stared at from behind by another. His work shows that the belief that a person can feel another staring at his back is absolutely groundless, and is to be accounted for by a nervousness arising from natural anxiety as to the appearance of one's back, inhibition by the dictates of good breeding of the impulse to turn around to see if anyone is staring, and the actual detection of another in the act of staring whose attention was attracted by signs of nervousness. Ten college students made one hundred guesses each, as to whether they were being stared at during a fifteen-second interval. Each student, with eyes closed and shaded by the hand, sat with the back toward the experimenter. Whenever the latter stared, he did so with conscious intensity, "willing" that the reagent "feel" it. A box containing a die was shaken, and when an odd number of spots was cast, the reagent was stared at; when an even number was cast, the experimenter did not stare. Of the 1,000 guesses 50.2 per cent were correct, an approximation to the probability figure when events are controlled by chance that warrants the conclusion that aside from hazard no cause need be assigned the right cases.

Now the degree of probability is, of course, a quantity which varies with circumstances. When the questions put to the ouija board are answerable by yes or no, in the long run one-half of the answers will be correct on the basis of chance alone. As regards coincidence it is well to bear in mind that the external world is so rich in the nature and variety of its events that correspondences between them and the output of the ouija board are bound to occur. It could hardly be otherwise.

[The results of the ouija board not traceable to chance and coincidence nor to the conscious and intentional manipulation of the planchette are the products of the subconscious.

A subconscious process is any form of mental life which is influential but not clearly recognized and identified by the person. The range of our mental experience is far more extensive than the activities of which we are pointedly aware, growths and connections of which we have no momentary clear consciousness are all the while occurring. It is only a minor fraction of all mental processes that ever comes to the definition and clearness, the major part of life being submerged beneath the level of awareness. Since the subconscious is that vast tract of the mental life which is not momen-

tarily scrutinized, it, in the nature of the case, eludes detailed examination and any information about it which we may possess is gained by indirect means. We may reasonably infer that the subconscious includes our moods and instincts, our biases and prejudices, our memories and impressions of the past, our habits of appreciation, and modes of decision. The subconscious is not an artificer acting upon its own initiative and responsibility. One should beware lest he impute to the subconscious magical powers it does not possess. It is not a factory in which substantial things are manufactured from elements or forces having no connection with our ordinary life. It can only combine and develop possibilities both mental and pre-existent.

The mental pathology of daily life affords many striking examples of subconscious activity. On close inspection consistency and method, subconscious connection and penetration, are discoverable in such seeming aberrations as lapse of memory, slips of the tongue and pen, misspelled words, and oversights. Building a fire I passed by a newspaper within easy reach and hunted elsewhere for combustible material. Later it occurred to me that the paper contained an editorial which I had resolved to read at my earliest convenience. Recently I have discovered that when I use the typewriter, there is a pronounced tendency to strike lightly the wrong key.

Frequently an operator of the ouija board will insist that a message includes facts of which he has had no previous knowledge whatsoever. Now nothing is more treacherous than memory. We recall but very little of what we have actually experienced. Experiments in abnormal psychology have succeeded in inducing mental states in which what could not be recalled under normal conditions has been revealed. One may be unable to recollect any of his dreams of last night, but in the state of hypnosis the dreams may be reported to the hypnotist. At the ouija board performance I attended, an operator firmly maintained that he had never had any knowledge of the given name of one of those present, which was correctly spelled out, until he was reminded that it has been appearing in the newspapers and elsewhere for years. Many results that appear to the operator and others to be novel and unrelated to normal experiences are doubtless latent and potential memories come to consciousness.

One evening a mother put her baby to bed and went to church, leaving her husband and a friend of his in charge of the home. The baby cried a long time but no attention was paid to it by the father. When the mother returned and inquired whether the baby had



cried in her absence, the tell-tale faces of the men were an affirmative reply. She determined to discover the reason for the crying by consulting the ouija board. Ouija reported that the child had cried a long time, too long, because the room was cold, a radiator having been turned off. Neither parent recalled having touched the radiator, but upon investigation it was turned off and the room cold. Doubtless we have here an example of unconscious memory blossoming into a ouija board message.

Again, altho one may be unaware of receiving any impressions thru the senses, the subconscious may take into account impressions imperceptible to consciousness. The range of our mental life is far more extensive than the psychic experiences of which we are aware and which are communicable. It has been repeatedly demonstrated that we are influenced by a multitude of subconscious registrations of which we are ignorant. We know more than we consciously know, we hear more than we consciously hear, we see more than we consciously see.

Experimental investigation in involuntary whispering has brought to light the fact that whenever we think, there is an initial and incipient movement of the vocal mechanism appropriate to the utterances of the thought, which altho inaudible to the clear consciousness of another may be subconsciously perceived. Mr. H. S. Curtis conducted experiments which recorded the automatic movements of the larynx when anything was mentally recited or even merely thought. Thinking is accompanied by a jiggling of the larynx, indicating incipient oral expression which may subconsciously be recorded by another.

Professor H. H. Donaldson reports an experimental example of the effect of imperceptible factors on judgment. Two surfaces differing by a slight but mesurable amount of illumination, were compared, the observers being required to state which surface was the brighter. The difference was too slight to be recognized; hence the observers were compelled to guess. The unrecognizable difference was subconsciously taken into account, for the brighter was correctly designated with the much greater frequency. The range of the sensibility of the personality was discovered to be far more extensive than that of conscious perception. The eye, the ear and the other end-organs of the central nervous system respond to stimuli too faint to be consciously perceived.

A gentleman in the presence of his wife plied the operators of a ouija board with questions to be answered by one John Smith, deceased.

*Question.* Who am I?

*Answer.* A boyhood playmate.

Q. Where are you?

A. On a higher plane.

Q. Are your father and mother going South this winter?

A. If mother has her way.

Q. What does your widow desire?

A. She would like to be here.

The questioner's wife confirmed the validity of the answers. She said that the mother of the deceased had told her that she was very anxious to spend the winter in the South; likewise that the young widow had repeatedly expressed the not unnatural desire to depart this life and join her husband. The operators insisted that they did not know that the questioner had been acquainted with the deceased. Probably involuntary whispering on the part of the gentleman and his wife and subconscious hearing on the part of the operators constituted the hidden basis of the report. The same operators spelled out the name of the father of a present questioner. Perhaps the same principle determined the result.

Closely coupled with involuntary whispering and subconscious hearing is muscle reading. Some minds are extremely sensitive to the signs of agreement or disagreement, of interests and disposition exhibited by the average face and body. The lifting of an eyebrow, a smile, a slight movement of the head, a trace of surprise, a little gesture of the hand, are all of a significance to an operator of which he himself may be wholly unaware. Time and again I have seen a group of unsophisticated persons bending over the ouija board and with breathing, facial expressions, and perhaps involuntary whispering so guide and control the performance that they unwittingly supplied the equally innocent operators with the answers to their own questions. And there is a noticeable tendency among operators to check up their results as they proceed. Perhaps without realizing the significance of what they are doing many want a reaction to the important details of a message as soon as they are given. It serves as a guide.

I attended a performance of the ouija board arranged for my personal benefit and at which I was the only inquirer. One of the operators put the questions I suggested to him. John Smith, deceased, spelled out a willingness to answer questions. The dialogue which I recorded at the time follows.

*Question.* John, do you know who it is that wants to ask you some questions?

*Answer.* Gentleman, heard him preach.

Q. Where did you hear him preach?

A. In the Methodist church.

Q. In what town?

A. G—.

Q. Do you know how L— (a professional mind-reader) answers the questions put to her?

A. It is beyond my sphere.

Q. What do you mean by that?

A. Get the gentleman to make an explanation.

At this point I interrupted to explain that there is no Methodist church in G—. John Smith was further quizzed.

Q. Since there is no Methodist church in G—, how do you explain your statement?

A. All sects attend.

Q. Did you ever meet him personally?

A. Not that I recall.

At this point I tried to jog the memory of the "spirit" and requested the conducting operator to inquire

Q. Do you remember meeting him in a hardware store at G—?

A. No, he must mean David.

This performance indicates a fertile field within which the ouija board may be consulted with success, as well as its limitations. Outside the subconscious range of those present, unless chance or coincidence are productive, the information is general altho often clever and adroit. Keeping as inscrutable and non-committal as possible, I threw the operators upon their own inner resources which in this case were extremely slender altho I did relent enough to correct a wrong answer and to jog the spirit's memory. I did meet the deceased a few years before his death in a hardware store, as I hinted, and had a conversation of some importance with him.

When there is a response to unknown and subconscious factors there is a subtle temptation to ascribe the product to the direct impression from another at a distance or to spirit influence. It seems to be a trait of human nature to refer thoughts, feelings, and actions excited by stimuli too weak to be consciously noted to sources outside the self. Such responses appear to be prompted by wills other than our own. The process of spelling out the words on a ouija board is no more mysterious than ordinary writing, typewrit-



ing, automobile gear shifting, or piano playing. All such operations altho conscious efforts at first, become mechanical and automatic.

Doubtless the ouija board affords secret longings and desires a release from subconscious captivity. Just as many of our wishes and aspirations which are unfulfilled in real life are gratified in our dreams, many of our hidden and half-suppress impulses and ambitions achieve definition and expression in the ouija board exercise. With all the force of an original revelation an operator may spell out what he himself in his inmost privacy and isolation wants to be or have.

The ouija board is an admirable device for stimulating and bringing to the surface subconscious material. Its operation permits much skirmishing about for clues and suggestions. It is said that the regular spiritualistic medium often experiences difficulty in submitting unusual names and dates. Having before them the alphabet and the numerals, the planchette being given the range of the entire board, the ouija operators have a chance to feel their way letter by letter or number by number. If an answer to a question is not forthcoming within a reasonable time, an operator may consciously give the planchette a little start upon its mission. The manipulation is materially facilitated by the contributions of two operators. What the one may not be able to produce, the other may supply. To be sure, now and then a conflict between the two arises which is likely to bring the planchette to a halt unless the one yields to the other. The chief characteristics of a good operator are a reliance upon intuition and feeling, an unwavering expectation that results will be obtained, and a high degree of sensitiveness to the outward signs and symbols of the inner mental movements of others. Altho not everyone can become a successful operator the ouija board performance is considered a relatively simple form of occultism. The output which I have personally observed may be reduced to chance and coincidence, unconscious memory, the involuntary transmission and perception of unrecognized stimuli, and half-suppress impulses and ambitions.

# Colors Developd by Cobalt Oxides

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## INTRODUCTION

The colors which cobalt oxides exhibit either as hydrous oxides or in sintered or fused masses with metallic oxides, borates, and silicates are characteristic as to afford valuable individual tests in qualitative analysis, and so brilliant in some cases as to suffice as pigments. Altho these facts and applications have been known and applied for a long time, even the ancients having used cobalt blue as a pigment, no effort has been made to classify the color phenomena or to generalize from such systemization.

With the scattered data collected, it is the purpose of this paper to offer an hypothesis which will account for the apparent erratic color effects shown by the numerous oxides, alone, hydrated or in physical or chemical combination with metallic oxides and fluxes.

## HISTORY

The data which is here collected has been arranged according to composition and not chronologically. The name and formula of the substance is given with methods of preparation and properties.

CoO—Cobaltous oxide.

Heating  $\text{Co}_3\text{O}_4$  in  $\text{N}_2$ . Oxidizes on heating in air to the black higher oxide. It is not oxidized even on long standing at ordinary temperature. Soluble in warm concentrated KOH and NaOH with deep blue color. Color,—light brown.<sup>1</sup>

By ignition of roses salt. Color,—black.<sup>2</sup>

By ignition of  $\text{Co}_3\text{O}_4$  in  $\text{CO}_2$ . Color,—brown.<sup>3</sup>

By reduction of  $\text{Co}_3\text{O}_4$  with  $\text{H}_2$ .<sup>4</sup>

By fusing rose crystals in an electric furnace.<sup>5</sup>

Density,—5.68<sup>6</sup> 6.7<sup>7</sup>

$\text{Co}(\text{OH})_2$ —Cobaltous hydroxide.

Precipitation of cobaltous salts in absence of air by concentrated KOH, gives blue colored basic salts which go over thru violet into a rose red hydroxide (more rapidly when warmed).<sup>8-9</sup> Boiling  $\text{CoCO}_3$  with KOH solution forms a voluminous blue oxide, which turns violet and then yields a rose red hydrate. The hydroxide pre-

precipitated by KOH always contains potassium.<sup>10-11</sup> On heating a solution of 10 grams  $\text{CoCl}_2 \cdot 6\text{H}_2\text{O}$  in 60 c. c.  $\text{H}_2\text{O}$  with 250 grams KOH under an atmosphere of illuminating gas,  $\text{Co}(\text{OH})_2$  dissolves yielding a blue color. After standing 24 hours the precipitated crystals are washed with water.<sup>12-13</sup>

The alkaline solutions contain the  $\text{Co}(\text{OH})_2$  as a colloid since it is not dializable and is precipitated onto  $\text{BaSO}_4$  by shaking with the latter. This is true also of the blue alkaline solution in glycerine and also for the green solution obtained by oxidation with air.<sup>14</sup>

Hantzsch<sup>15</sup> found that the blue precipitate obtained at first when cobalt salts are precipitated by alkalies was cobalt salt. In the absence of this latter, i. e., with excess of alkali, the blue changes quickly to the pink hydroxide.

The author in some experiments carried out at New York University has shown that the pink hydroxide may be changed to blue by allowing it to stand in contact with cobalt solutions.

#### **Magnesium cobaltite.**

When  $\text{MgO}$  is heated with  $\text{Co}(\text{NO})_2$  it takes on a pale rose red color. Also minerals which contain magnesium, upon heating with  $\text{Co}(\text{NO}_3)_2$  take on a rose red color, when  $\text{Al}_2\text{O}_3$  or other heavy metallic oxides are absent. Berzelius. When a mixture of neutral  $\text{CoCl}_2$  and  $\text{MgCl}_2$  is treated with ammonia, a green precipitate forms, which contains nearly 10%  $\text{MgO}$ , which remains green upon washing, being insoluble in ammonia and  $(\text{NH}_4)_2\text{CO}_3$ , slightly soluble in  $\text{NH}_4\text{Cl}$  imparting a dirty yellow color, and can again be precipitated by KOH.<sup>16</sup>

#### **$(\text{Mg},\text{Co})\text{O} \cdot \text{Al}_2\text{O}_3$ .**

On fusing 5 parts  $\text{Al}_2\text{O}_3$ , 2.4 $\text{MgO}$ , .20 $\text{CoO}$  and 4.7 fused  $\text{B}_2\text{O}_3$  in a platinum dish and dissolving the flux in  $\text{HCl}$ , regular octohedra remain which will scratch glass. When less cobalt is used blue spinels form.<sup>17-18</sup>

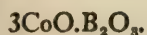
#### **$2\text{MgO} \cdot \text{CoO} \cdot \text{B}_2\text{O}_3$ .**

Made by Ebelmen<sup>19</sup> according to Mallards<sup>20</sup> method. The product is composed of an isomorphous mixture of  $3(\text{MgO} \cdot \text{CoO})2\text{B}_2\text{O}_3$ , which according to Guertler<sup>21</sup> possesses the formula  $2(\text{MgO} \cdot \text{CoO})2\text{B}_2\text{O}_3$  since the formula of the compound  $3\text{MgO} \cdot 2\text{B}_2\text{O}_3$  in reality is  $2\text{MgO} \cdot \text{B}_2\text{O}_3$ .

#### **$3\text{CoO} \cdot 2\text{B}_2\text{O}_3 \cdot 4\text{H}_2\text{O}$ .**

By precipitation of  $\text{CoSO}_4$  with borax. Color,—reddish white.<sup>22</sup>





Fusion of  $\text{CoO}$  with  $\text{B}_2\text{O}_3$ . Rose red rhombic crystals.<sup>19</sup>  
Formula corrected by Guertler to  $2\text{CoO} \cdot \text{B}_2\text{O}_3$ .<sup>21</sup>

$\text{Co} \cdot \text{Al}_2\text{O}_3$ —Cobaltoaluminate.

Heating  $\text{Al}_2\text{O}_3$  with  $\text{Co}(\text{NO}_3)_2$  or by precipitation of a mixture of alum which is iron-free and a Co salt with an alkali a bright blue precipitate forms.<sup>23</sup>

#### Thenard's Blue.

Composition varies, depending on the method of manufacture. Sometimes it is  $\text{CoO}$  and  $\text{Al}_2\text{O}_3$ ; other times it is phosphate or arsenate of cobalt. It is best prepared by first precipitating a solution of a cobalt salt, usually the nitrate iron and nickel-free, with potassium or sodium phosphate or with sodium arsenate. The gelatinous, violet precipitate is thoroly washed and well mixt with 3 to 5 volumes of freshly precipitated, well washed alumina (when cobalt arsenate is used a larger proportion of alumina may be added) precipitated from a solution of alum, free from iron, by the addition of  $\text{Na}_2\text{CO}_3$ . The mixture is dried until it becomes brittle, and calcined at a cherry-red heat for thirty minutes in a well covered clay crucible. When the desired blue color has been developd, the mass is ground with water and dried. In order to prevent the possibility of entrance of reducing gases, which injure the value of the product, Regnault<sup>24</sup> recommended the addition of a little mercury oxide before the ignition. This becomes decomposed and evolves oxygen, which prevents reduction, while the mercury escapes as vapor.

A similar but less fine product is produced by the simultaneous precipitation of the oxide of cobalt and aluminum by the addition of  $\text{Na}_2\text{CO}_3$  to a mixture of  $\text{Co}(\text{NO}_3)_2$  and alum. The mixt precipitate is washed and treated as above.

According to the process recommended by Binder,<sup>25</sup> the oxide of cobalt is precipitated by the addition of the requisite quantity of ammonia to a solution of pure  $\text{CoCl}_2$ . The washed precipitate is mixt with alumina as before, dried and calcined at a red heat in a clay crucible for two hours.

Thenard's blue is of a fine ultramarine color; the presence of an excess of cobalt imparts a somewhat greenish tinge. It is one of the most permanent blue pigments, being unaltered by acids and alkalies, and is largely used as an oil and water color but works better in water alone. It is non-poisonous, and has the advantage of miscibility with other pigments without alteration.

**Rinman's green.**

The first contributions concerning Rinman's green were made in the year 1780. The Swede, S. Rinman, described at that time one of his newly discovered green pigments which he recommended as a paint color because it resisted atmospheric conditions.

From the end of the 18th century to the middle of the 19th century, however, one would search in vain for information concerning Rinman's green. One finds that the industrial investigation concerning this substance have been carried out technically rather than chemically, that is, there are given specific directions as to what proportions of the two oxides one should take to get a beautiful, opaque color, with good covering qualities. At best, one finds only very indefinite suppositions concerning the reaction involved.

Researches carried on by Hedvall<sup>26</sup> to prepare Rinman's green in crystalline form resulted in formation of CoO crystals in octahedral and prismatic form, similar to those obtained by Lachaud and Lepierre. He found that he could obtain well defined CoO crystals when he heated several times to about 1000° or more, ordinary CoO or CoCO<sub>3</sub> with say four times its weight of KCl. One obtains exceedingly beautiful crystals of CoO as they appear enclosed in the Rinman's green. They have a dark red color and the majority of them seem to be octahedra, tetrahedra, and a combination of positive and negative tetrahedra.

Very often one observes that the CoO crystals which appear enclosed in the crystals of Rinman's green are surrounded by a brighter colored green region than Rinman's green. Often they are embedded in CoO.

Hedvall has accepted an hypothesis of L. Storch<sup>27</sup> to explain the color of Rinman's green. According to Storch, there exists a blue modification of the lower oxide of cobalt which with the yellow zinc oxide yields a green color. This blue modification is not stable unless zinc oxide is present. It is thought that S. Rinman conceived of it as early as 1780. One meets it again in the work of J. Bersch. No doubt the opinion is a remnant of the time when chemists establish the properties of the metallic oxides from those of the salt.

In any event, it is not very probable because: (1) This blue modification has never been prepared. (2) Since in the above examples with ZnO this is yellow when hot; crystalline ZnO is exceedingly pale yellow with a tinge of green. This color change rests upon the fact that the absorption sphere of the ZnO moves with the rise of temperature from the ultraviolet to the visible part of

the violet spectrum and not upon the formation of a new modification. Such shifting of the absorption sphere with the temperature is quite general.

In nature crystalline ZnO occurs as the rare mineral zincerite, which crystallizes in hexagonal semimorphous prisms and pyramids, Gorgeu<sup>28</sup> states that by heating  $\text{ZnSO}_4$  with an alkali sulphate, there is formed greenish yellow, hexagonal prisms and tablets with high refractive index.

The question which deserves consideration and which is quite a natural one is: Is Rinman's green a compound, and in what way is one to conceive the structure of this body? This substance was made by Hedvall from a mixture of zinc and cobalt carbonate or oxalate, or the oxide mixture which results from the heating of the salts. Thereupon this mass was again heated with or without a flux of KCl to  $1100^\circ$  and  $1300\text{--}1400^\circ$ . The crucible used in every case was platinum, since by the use of porcelain crucibles, it has been shown that CoO unites with the silicate glaze.

When Rinman's green is prepared according to this method one observes that even at red heat the contents of the crucible become greenish yellow. The mass is not molten and does not appear homogeneous. After cooling, the surface is grayish black, the inner part retaining its yellowish green color. At higher temperature, that is white heat, the color becomes almost green when one has proper proportions of the oxide and when cooled in an atmosphere of  $\text{CO}_2$ , the color is not changed, when it is cooled in the air, however, the surface becomes black due to the formation of  $\text{Co}_3\text{O}_4$ .

Efforts to prepare Rinman's green from a mass of the composition of 1 CoO.1 ZnO with 60-70% KCl were not successful when heated at  $1100^\circ\text{C}$  and only a few crystals of Rinman's green and CoO formed. Often these fused together and well defined crystals formed from the inside of the crucible in a remarkable fashion, from  $\frac{1}{2}$  to 1 cm. large. They collapsed, however, as soon as they were boiled with water. This same mass, however, may be heated at the same temperature with 100% KCl for three and one-half hours and cooled in  $\text{CO}_2$ . After removing the flux a dark green substance remained. It is composed of red and green crystals. Some of the green ones are large and well defined. In this case they are hexagonal plates or pyramids of a beautiful green color. Often a zone structure can be observed. The red crystals often appear enclosed in the green and are well formed octahedra. With this last proportion of flux and oxides and at this temperature  $1100^\circ$  a well crystalline Rinman's green can be formed.



The yield of large crystals is very small with only one ignition, therefore the operation was repeated several times. Each time during ignition, instead of volatilizing, new mixtures of flux were added; besides, between each heating the mass was boiled out in order to accomplish thoro mixing, without crushing the larger crystals already formed. Each ignition lasted from one to two hours and after repeated ignition, the yield was increased as well as the formation and size of the green crystals.

From the analysis of these red and green crystals it was concluded that Rinman's green had no definite composition. If then, Rinman's green is not a chemical compound, it may be a case of solid solution. If one accepts  $\text{ZnO}$  as a solvent, then it follows that we are dealing with a dilute solution.

From the study of the effect of various fluxes, we can conclude that the different fusions give Rinman's green of varying composition. From this it is clear that these substances can be no chemical compounds but rather a solid solution between the two components  $\text{CoO}$  and  $\text{ZnO}$ . These two substances form with each other a series of mixt di-isomorphous crystals; while  $\text{ZnO}$  crystallizes hexagonally,  $\text{CoO}$  in general, at least, crystallizes regularly. Only in a few cases, where the larger crystals of Rinman's green were obtained, was it possible to determine crystal structure and in those cases it was hexagonal. Whether or not it gave a regular form (with large mixtures of  $\text{CoO}$ ) was not proven. At any rate, according to Weber, a regular crystalline form of  $\text{ZnO}$  is known.

It can be concluded from the investigation, that the formation of Rinman's green takes place at red heat, but much more quickly at higher temperature. It is not necessary, however, that the mass liquifies, for the masses which do not contain flux give a Rinman's green of the same appearance as the rest; only the conversion between  $\text{CoO}$  and  $\text{ZnO}$  is not complete. We have here then in all probability, an example of diffusion in solid substances.

$\text{CoO.V}_2\text{O}_5$ .—Cobaltovanadate.

Normal vanadate yields reddish yellow precipitate with cobalt salts. Acid cobalt vanadate is water soluble, when treated with acid in aqueous solution a reddish yellow precipitate forms. Berzelius.<sup>29</sup>  $\text{Co}(\text{NO}_3)_2$  when treated with  $\text{NH}_4\text{VO}_3$  in a completely neutral solution yields an orange yellow precipitate. When heated it has the composition  $\text{CoO.V}_2\text{O}_5$ .

Cobaltovanadate by conversion of potassium vanadate with cobalt salts.



By displacement of ammonium vanadate with an excess of  $\text{Co}(\text{NO}_3)_2$  in acid solution with  $\text{HNO}_3$  and warming. Garnet red, rhombic prisms form which are soluble in water.<sup>32</sup> According to Radau<sup>31</sup> it is not probable that normal vanadate forms under the conditions just mentioned.



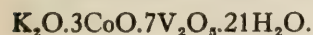
An ammoniacal solution of cobalt salts gives with  $\text{NH}_4\text{VO}_3$  a greenish precipitate, which on exposure to air takes up oxygen. At  $100^\circ$  it becomes reddish brown and upon heating a black product is formed of the above composition (?).<sup>33</sup>

A 20% solution of  $\text{KVO}_3$  is mixt at room temperature with 100 cc. of  $\text{CoSO}_4$  containing 18 grams of the salt. A reddish yellow crystalline precipitate forms which is slightly soluble in water and completely soluble in acids.

A solution of 20 grams  $\text{KVO}_3$  in 200 cc. water is mixt with a solution of 20 grams  $\text{CoSO}_4$  in 200 cc. water; after warming on the water bath, 70 cc. of 25% acetic acid is added whereby the yellowish red precipitate which first forms redissolves. The dark red solution yields glistening brownish red crystals.

A solution of 16 grams of  $3\text{K}_2\text{O.V}_2\text{O}_5.10\text{H}_2\text{O}$  in 400 cc. water mixt with a solution of 11 grams of  $\text{CoSO}_4$  in 10 cc. boiling water is stirred and digested for some time. The dark red solution yields garnet red crystals, which at  $120^\circ$  loses  $\frac{1}{4}$  of its water and at  $220^\circ$  loses all of it.

12 grams of pot. divanadate are dissolved in 250cc. boiling water and mixt with 8.5 grams  $\text{CoSO}_4$  in 100 cc. water. Dark red crystals form having properties similar to those just mentioned. 4.8 parts of the substance dissolve in 100 parts of water at  $17.5^\circ$ .<sup>34-35</sup>



A solution of 20 grams of  $\text{KVO}_3$  in 400 cc. water is mixt with 18 grams  $\text{CoSO}_4$  in 250 cc. water. At first no precipitate forms but a turbidity results upon standing for some time. Upon evaporation brown crystalline crusts form along with little yellowish brown crystalline needles which can be separated from each other mechanically. The latter crystals are the ones sought for.<sup>31</sup>



By heating of Braun's so-called luteocobaltimeta phosphate, becomes rose red upon the addition of conc.  $\text{H}_2\text{SO}_4$ , red with  $\text{NaOH}$ ; after removing  $\text{NaOH}$ , the residue remaining for the most part is soluble in  $\text{HCl}$ . The undissolved part is beautiful red.<sup>36</sup>

**3CoO.2P<sub>2</sub>O<sub>5</sub>—Cobaltopyro meta phosphate.**

Remains as a violet powder when (Co(NH<sub>3</sub>)<sub>6</sub>) (PO<sub>4</sub>H)<sub>3</sub>.4H<sub>2</sub>O is heated. Contains 43.58% CoO.<sup>36</sup>

**Cobaltoarsenite 7CoO.As<sub>2</sub>O<sub>3</sub>.**

Excess Co(NO<sub>3</sub>)<sub>2</sub> with 3 Na<sub>2</sub>O.As<sub>2</sub>O<sub>3</sub> thus,—  
 $7\text{Co}(\text{NO}_3)_2 + 2(\text{Na}_2\text{O}.\text{As}_2\text{O}_3) + \text{H}_2\text{O} = \text{Co}_7\text{As}_2\text{O}_{10} + 12\text{NaNO}_3 + 2\text{HNO}_3 + \text{As}_2\text{O}_3$ . When freshly precipitated, a slimy, very voluminous amethyst colored mass forms, which upon drying in the air contains 20% water, losing it at 150°. Very soluble in dil., difficulty soluble in conc. H<sub>2</sub>SO<sub>4</sub>, soluble in NaOH and ammonia. When suspended in water and shaking or better, warming with BaO<sub>2</sub> it becomes first leather yellow, then brown and finally black (formation of Co<sub>2</sub>O<sub>3</sub>). Very soluble in KCN, from which it can again be precipitated by acids; BaO<sub>2</sub> does not decompose it in presence of KCN, so that KCN retards the above reaction.<sup>37-38</sup>

**3CoO.As<sub>2</sub>O<sub>3</sub>.4H<sub>2</sub>O or CO<sub>3</sub>(AsO<sub>3</sub>)<sub>2</sub>.4H<sub>2</sub>O.—Cobaltorthoarsenite.**

From a 50% alcoholic solution of CoCl<sub>2</sub> and a solution of K<sub>3</sub>AsO<sub>3</sub> made neutral with acetic acid. Bright red precipitate forms which is difficulty soluble in water, readily soluble in acids. Turns black upon heating.<sup>39</sup>

**2CoO.As<sub>2</sub>O<sub>3</sub>.Co<sub>2</sub>As<sub>2</sub>O<sub>3</sub>.—Cobaltopyroarsenite.**

According to Proust,<sup>40</sup> seldom forms in the interior of erythrite. By mixing dissolved cobalt salt and potassium arsenite. Rose red precipitate forms which upon drying becomes dark and horny. That which is precipitated by 2K<sub>2</sub>O.As<sub>2</sub>O<sub>3</sub> is 2CoO.As<sub>2</sub>O<sub>3</sub>.<sup>41</sup> From Co(NO<sub>3</sub>)<sub>2</sub> and Na<sub>2</sub>As<sub>2</sub>O<sub>4</sub> a violet blue precipitate forms which upon heating loses As<sub>2</sub>O<sub>3</sub> and leaves a dark blue residue.<sup>42</sup> From CoCl<sub>2</sub> solution by potassium pyroarsenite K<sub>4</sub>As<sub>2</sub>O<sub>6</sub>.6H<sub>2</sub>O as described by Girard.<sup>43-39</sup>

Heated in glass vessels As<sub>2</sub>O<sub>3</sub> is evolved and colors the glass blue, decomposed by hot KOH into Co(OH)<sub>2</sub> and a blue solution which upon the addition of water precipitates the Co(OH)<sub>2</sub> which was set free. Dissolves in HNO<sub>3</sub> with evolution of nitrosylsulfuric acid, also in HCl and in ammonia solution imparting a dark red color, Soluble in KOH or NaOH only in nascent state.

When potassium stannite with large excess of KOH is added to a cobalt salt solution.<sup>43-44</sup>

**3CoO.2As<sub>2</sub>O<sub>3</sub>.4H<sub>2</sub>O.**

To a solution of CoCl<sub>2</sub> which is mixt with an excess of NH<sub>4</sub>Cl,



is rapidly added potassium arsenite whereupon much ammonia is evolved.

From diluted cobalt salt solution with  $K_2O.2As_2O_3$ .<sup>42</sup> The fresh precipitate, pale rose red, gradually becoming heavier and darker first loses water upon heating with darkening of color, then  $As_2O_3$  and leaves a beautiful blue flux and upon cooling a solid crystalline residue remains. KOH decomposes the precipitate when heated, with separation of blue  $Co(OH)_2$ ; HCl decomposes it and converts it into arsenate. At  $100^\circ$  it loses 10.3%  $H_2O$  ( $4H_2O = 10.39\%$ ). With ammonia a brownish red and when treated with KCN a yellowish red solution is produced.<sup>42</sup>

Stavenhagen<sup>39</sup> could not obtain  $Co_3As_4O_9.4H_2O$  by rapid addition of  $K_4As_2O_7.2H_2O$  to a solution of  $CoCl_2$ .

Basic  $4CoO.As_2O_5$ . Water free. Cobaltoarsenate.

From a solution of cobaltoarsenate acid with  $HNO_3$  by  $Na_2CO_3$ . Cobaltoarsenate when fused in a porcelain oven crystallizes completely into beautiful prisms. These are deep dark blue, rose red when powdered, and easily soluble in acids.<sup>45</sup>

The commercial Cobaltoarsenate is formed as Chaux metallique by precipitation of a solution of metallic cobalt in  $HNO_3$  with  $K_2CO_3$ , from which  $FeAsO_4$  has previously been removed by precipitation.

By repeated fusion of glossy cobalt with Fe free Potassium arsenicobalt, which is then roasted until it is all changed into a red powder.

With 1 mol.  $H_2O-OAs-$   $\left\{ \begin{array}{c} O \\ O \\ O-COOH \end{array} \right\} Co$

By heating of an excess of  $Co(NO_3)_2$  solution with  $Na_3AsO_4$  in a sealed tube at  $180^\circ$ . Orthorhombic, blue and reddish violet crystals.<sup>46-47</sup>

$Co_3(AsO_4)_2.8H_2O$  Normal.

Occurs in native state as erythrite. The erythrite forms small tuft like groups, long monoclinic needles, semitransparent, crimson or peach blood red, very uniform. Upon drying it is a deep lavender blue color.<sup>48</sup>

Formed by precipitating a cobalt salt with sodium arsenate as a peach blood red substance which dries to a dark horny like mass.<sup>49</sup> By treatment of an aqueous solution of  $(NH_4)_3AsO_4$  with or without addition of  $NH_4Cl$  or in absence of free ammonia, a pale rose red precipitate forms which is composed of fine rose red needles.<sup>50</sup>

$\text{Co}_3(\text{AsO}_4)_2 \cdot 8\text{H}_2\text{O}$ . Acid.

Solution of  $\text{Co}(\text{OH})_2$  or the normal cobaltoarsenate in excess arsenic yields when evaporated in vacuum over conc.  $\text{H}_2\text{SO}_4$ , peach blood red, star shaped needles uniting in clusters similar to erythrite, soluble in water however.<sup>51</sup>

$5\text{CoO} \cdot 2\text{As}_2\text{O}_5 \cdot 3\text{H}_2\text{O}$ .

When  $\text{CoCO}_3$  is digested with an excess of arsenic acid solution and the liquid heated in a sealed tube at  $235^\circ$ , a pale rose colored needles form, insoluble in water and losing their water at high temperature.<sup>52</sup>

$2\text{CoO} \cdot \text{As}_2\text{O}_5$  water free.

Prepared from potassium metarsenate and a little  $\text{CoO}$ . Violet, knobbed crystals.<sup>53</sup> Using more  $\text{CoO}$ , potassium cobaltorthoarsenate yields  $2\text{CoO} \cdot \text{K}_2\text{O} \cdot \text{As}_2\text{O}_5$  upon adding  $\text{CoCl}_2$ , blue somewhat opaque crystals form. With sodium instead of potassium  $4\text{CoO} \cdot 2\text{Na}_2\text{O} \cdot 3\text{As}_2\text{O}_5$ , violet, leaf-shaped crystals form. Upon the addition of  $\text{NaCl}$  to the orthoarsenate  $\text{CoO} \cdot 2\text{Na}_2\text{O} \cdot \text{As}_2\text{O}_5$ , blue transparent prisms form, isomorphous with the  $\text{Mn}$  and  $\text{Cd}$  salts.<sup>54</sup>

Cobalt antimonite.

A pale violet noncrystalline powder is obtained. Upon heating it turns dark green with loss of water; on strong heating is glistens and possesses a white color and is difficultly soluble in water.<sup>55</sup>

Cobaltochromite— $\text{CoO} \cdot \text{Cr}_2\text{O}_3$ .

This substance is prepared from a hot solution of  $\text{CoCl}_2$  and chrome alum (equivalent quantities) with sodium carbonate and the bluish gray precipitate is heated. Beautiful dark green crystals form which lack metallic lustre and magnetism.<sup>56</sup>

Acid Cobaltomolybdate. —  $\text{CoO} \cdot 2\text{MoO}_3 \cdot 2\text{H}_2\text{O}$ .

Forms at  $100^\circ$  from  $2\text{CoO} \cdot 4\text{MoO}_3$ . When heated with blast lamp it loses water and  $\text{MoO}_3$  and changes to the normal violet salt.<sup>55</sup>

$2\text{CoO} \cdot 4\text{MoO}_3 \cdot 13\text{H}_2\text{O}$ .

Forms in considerable quantities as microscopic brown needles, very difficultly soluble in water, after separation of  $\text{CoMoO}_4 \cdot \text{H}_2\text{O}$  from equivalent solutions of  $\text{Na}_2\text{O} \cdot 2\text{MoO}_3$  and  $\text{CoCl}_2 \cdot 6\text{H}_2\text{O}$ .<sup>56</sup>

$\text{CoO} \cdot 3\text{MoO}_3 \cdot 10\text{H}_2\text{O}$ .

$\text{CoCO}_3$  is boiled with an excess of  $\text{MoO}_3$  and the solution al-

lowed to evaporate spontaneously. Knobs resembling cauliflower and of rose red color, difficultly soluble in cold, very soluble in hot water.<sup>86</sup>

$3\text{CoO} \cdot 7\text{WO}_3 \cdot 25\text{H}_2\text{O}$ .—so-called paratungstate.

Formed by the addition of boiling sodium paratungstate solution to a cobalt sulphate solution (not the reverse which results in the formation of double salts). From a fine grained precipitate it changes to an oily viscous dough-like rose red colored mass of silky lustre. The latter solidifies on cooling to a firm powdery mass of the same composition as the fine grained product. Bright rose colored microcrystalline, infusible at red heat and upon cooling takes on a bluish color.<sup>87</sup>

### CONCLUSIONS

On examination of the compounds of cobalt in the previous section, it is at once obvious that they, for the most part, fall into two classes with respect to color: red and blue. The red salts are generally hydrated, and the red hydroxide is the one stable in presence of alkali. The blue salts are generally anhydrous, and the blue hydroxide is stable in the absence of alkali, or in the presence of cobalt salt or cobalt iron. The writer is doubtful of the correctness of designating many of the combinations as "compounds". In many cases, where these are amorphous they are probably adsorption coagula, and where they are crystalline they are probably mixt crystals whose composition is simple, fortuitously, or because equivalent ratios of constituents were used in their preparation. The very complete research on Rinman's green illustrates the case of mixt crystals.

Without intention to exaggerate the analogy, a certain similarity may be noted between tautomeric forms of organic indicators and the two forms of cobalt hydroxide. For example, there is the colorless phenolphthalein, its colorless ethers and polysodium salts and the colored phenolphthalein ethers, monosodium salt, and insoluble silver salt. This indicates the inadequacy of any assumptions as to ionization or hydration to explain the colorlessness or color of these compounds and throws the explanation back to the structure theory. Since all phenolphthalein compounds, in the absence of other chromophores, are colorless or red, so all cobalt oxide compounds, solid solutions or mere agglomerates are either blue or red provided no other chromophores are present. Application of the methods of the recent work done on X-rays and crystal structure will furnish conclusive evidence as to the correctness of this theory. Until such data is available, the mere classification just given must suffice.



## SUMMARY

1. Consideration of the colors of compounds of cobalt oxide leads to division of these into two classes.

2. An hypothesis is advanced, which is based upon structural arrangement, to account for the colors of the two classes.

NOTE: The writer wishes to express his thanks to Dr. E. F. Farnau of the Department of Chemistry, University of Cincinnati, for the suggestion of this topic and for his valuable suggestions.

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# The Dust Storm of January, 1921

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"It is probable that every square mile of the earth's surface has dust upon it from every other square mile."\*\*

Citizens of Grand Forks may have gotten the impression that it was moving day for dust as they emerged from the storm of January 18th and 19th. Everyone whose routine took him out of doors, especially on the 19th, carried the evidence of stopping his share. Even the chamois skin, the powder puff, and other dry cleaning instruments were supplanted by plain soap and water.

The following study of the storm may serve to present some interesting information about the quantity of material of the earth's surface that may be moved by the wind. The facetious may point out omissions, concerning many of which the writers are already aware, such as the graph of increase of impious thoughts suppressed or expressed by those who had the job of removing the dirt from clothes or house; the increase in sales of soap of the week following, and other less evident but equally intriguing data.

That wind is a major agent in moving material and fashioning the present earth features would seem self-evident, but seldom does the process intrude itself in such a striking way as in the recent storm. When it is remembered that countless dust storms have probably mixed and remixed the lake silts of the Red River valley since the waters of the ancient lake drained off, then the process assumes major proportions. But the formation of our lake silts was the event of a geologic yesterday. Wind has probably been operating in a similar way since our globe had an atmosphere, and this takes us back to the more ancient history of the old earth.

## METEOROLOGICAL REPORTS OF THE STORM

The first indication of an approaching storm at Grand Forks was a rapidly falling barometric pressure on the morning of the 18th accompanied by an increasing wind velocity during the forenoon. The wind during the day increased from a light breeze in the mor-

\* This study was prepared in large part by the following members of the class in Applied Geology, at the University of North Dakota: Howard Bakken, Harold Bowen, William McCulloch, Monte McCutcheon, Cameron McKay, McDonald Scott, and Arvid Wahlberg, under the direction of the instructor, Leonard P. Dove. Acknowledgement is due to the United States Weather Bureau for maps and records of the storm. Description accounting for use of photographs on insert opposite will be found on page 250.

\*\* Cleland, Geology, Physical and Historical, p. 52.

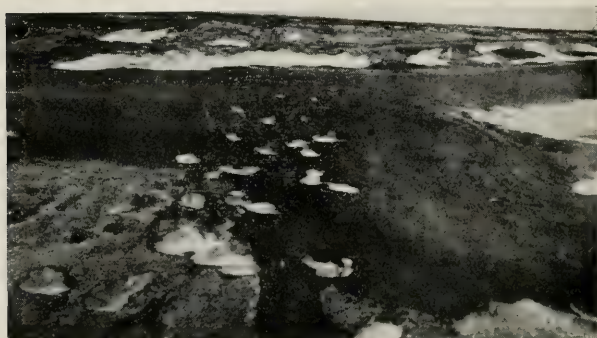




Photograph of sample plot number one on Saturday, Jan. 22. The contrast of the clean underlying snow with the adjacent dust-covered snow is striking. The plot stood up fully three-fourths of an inch above the adjacent snow showing the superior absorption of heat and consequent rapid melting of the dust-covered snow.



Footprints in the snow filled with dust. Drifts of some of the clean snow that fell on the evening of the 19th may be seen in the distance.



Footprints in the dirty snow filled in part by the clean snow of the 19th and showing by contrast the quantity of dust on the older snow.



ning to a high wind with a maximum velocity of 48 miles per hour at eleven o'clock that evening and continued thru the night with an average of about 30 miles. The morning of the 19th the velocity again increased reaching the storm record of 56 miles per hour at 11:30 A. M. The wind during this period, on the 19th, maintained a general southeasterly direction but shifted to the west during the afternoon, averaging about 50 miles an hour until nine o'clock that evening when it dropt to a gentle breeze which continued from the west for the rest of the night.

The cyclonic storm which caused this high wind originated in northeastern Nevada, and traveled in a generally northeasterly direction at a rate of approximately 33 miles an hour, its center passing over Grand Forks at about noon on Wednesday, the 19th. The final indications of the storm as taken from the daily weather maps of the United States Weather Bureau shows its decrease in intensity about the time its center had reached the eastern part of Michigan and from there eastward the winds were almost entirely abated. The area over which the storm passed in its greatest intensity covers a section nearly 2,000 miles long and 200 miles wide. This gives an area of approximately 400,000 square miles that the storm covered in its three days' duration. The morning of the 19th, the second day of the storm, found its center passing over Williston, North Dakota, and the Williston station on that morning reported barometric pressure of 29.26 inches, the lowest of any point in the United States during that day and the lowest pressure of the storm. The pressure that day over the entire state of North Dakota was the lowest for any day during January and gives some indication of the intensity of the storm.

#### PROCEDURE OF SAMPLING

Following the high winds of the 18th, weather conditions were very favorable for the collection of the dust which was transported during the storm. The ground was only partially covered with snow. During the afternoon of the 18th, clouds of dust were transported and thick layers collected on the surface of the snow. The wind died down somewhat during the night of the 18th and a thaw started in on the morning of the 19th with a light rain about ten o'clock which cleared the air and preserved the dust from further removal. On the evening of the 19th a light snow was piled in shallow drifts by the wind. A second thaw on the 20th softened the snow. The underlying snow was clean and soft thus permitting the easy and complete collection of the entire amount of dust deposited.

In collecting the samples a square meter of surface was cleaned



of dust for each. Precautions were taken to see that the samples were collected in places where the dust had not drifted in excessive amounts. Six samples of one square meter each were collected from over an area of more than a square mile. The first one was taken from a point about 45 feet south of Science Hall on the University campus; the second, 30 rods east of Columbia Road and 25 feet south of the track on the Great Northern Railway right of way; the third, in the stubble field east of Columbia Road and north of the Great Northern tracks; the fourth and fifth, about 80 rods apart in the Richards' farm pasture south of the University, and the sixth, from the south side of the road about 10 rods east of the International experimental farm buildings.

#### PREPARATION OF THE MATERIAL

The snow which contained dust was melted, the water allowed to settle, and the clear water decanted. The mud was dried on a steam radiator at a temperature of from 70° to 200° F. The mud on drying caked badly and had to be broken up by rubbing carefully between boards to avoid grinding the larger fragments of cinders. Even with this treatment a considerable amount of caked mud remained.

#### SUMMARY OF DATA

The following table summarizes the analysis of the dust. It was first screened and then examined under the microscope.

#### NOTES ON TABULAR SUMMARY

The greatest bulk of material was probably of local origin as it resembles soil from the Lake Agassiz silts having been blown from plowed fields only partially covered with snow. The finer particles were probably kept in suspension by the wind and brought down by the rain mostly to the eastward.

The cinders are no doubt from the railroad tracks and yards.

Fibers of plants and considerable humic material were mixt with the dust.

The amount of dust in the caked mud would increase the total that would pass the 200 mesh screen to approximately 90%.

#### SOME FIGURES

Assuming the samples to be representative, the following estimates of the amount of dust moved are striking:

Dust on each square mile .....	801 tons
Assuming an area of four square miles for the City of	
Grand Forks .....	3,204 tons

TABULAR SUMMARY

Screen analysis	Diameter of largest particles in millimeters	Diameter of smallest particles in millimeters	Weight in grams	Per-centage of total	Materials present	Approximate per-centage	NOTES
Thru 200 mesh	.093	—	1447	85.7	sand mud cinders	80 19 1	Sand is composed of angular to sub-angular grains of quartz (95%+) calcite anc. and occasional grains of mica hornblende.
On 200	.2125	.093	109	6.53	sand mud cinders	50 35 15	
On 100	.265	.2125	30	1.78	sand mud cinders	50 30 20	
On 80	.374	.265	19	1.13	sand mud cinders	6 75 19	
On 60	.445	.374	31	1.84	sand mud cinders	2 60 38	
On 40	.871	.445	38	2.23	sand mud cinders	1 50 50	
On 20	—	.871	13	.79	sand mud cinders	21 80 20	

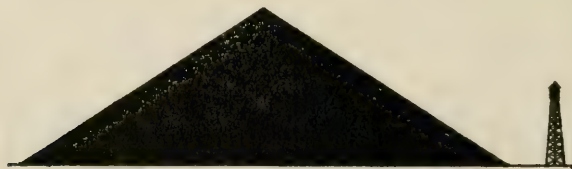
Total 1687

.281 Kg. per square meter.

A solid train load of 65 cars of 50 tons each..... 3,250 tons  
 Grand Forks County has an area of 1433 square  
 miles—the dust deposited in the county amounts to 1,147,833 tons  
 Allowing a density of 1.1 for the dust makes a  
 total of .....33,464,529 cu ft.

If all this dust were dumpt in a conical pile it would be 736 ft. across the base and 242 ft. high. Such a cone is shown below as contrasted with the water tower of East Grand Forks, Minnesota, which is approximately 25 ft. square on the base and 125 ft. high.

It is likely that an area of at least 400,000 square miles was covered in the storm. Little is known about the amount of material moved over this vast area, but it is fairly certain that an area equal



to half the size of North Dakota, or 35,000 square miles, could have been covered by the dust which would amount to the tremendous total of 28,035,000 tons, or 813,015,000 cubic feet. This would be equivalent to a cube of dirt nearly one-fifth of a mile on edge.

The dust storm that visited North Dakota is but a repetition of countless similar storms on the earth that moves millions of tons of material about and forces the conclusion that the wind is an agent of major importance in modeling the earth's surface.



## Book Reviews

**THE NATURE OF ANIMAL LIGHT:** E. NEWTON HARVEY, Professor of Physiology in Princeton University. One of the "Monographs on Experimental Biology", Edited by Jacques Loeb, T. H. Morgan, and W. J. V. Osterhout. J. B. Lippincott Company, Philadelphia and London, 1920. VIII+182 Pages. Price, \$2.50.

The production of light in animals is such an extraordinary phenomenon that it has excited almost universal interest. This has resulted in numerous investigations and literally hundreds of books and papers of all descriptions, and yet the advances in our knowledge during the past few years concerning certain phases of the phenomenon has been so marked that a general work devoted primarily to these advances is welcome. The phases referred to concern primarily the chemistry underlying the production of light, and the monograph before us is devoted largely to this subject.

The production of light is widely distributed in the animate kingdom. It is found in certain species in nearly all of the great groups from the lowest to the highest. Compared with the total number of species there are, however, only very few that are luminous. Practically nothing is known concerning the phylogenetic origin of the phenomena. The author says (page 11):

"Apparently there is no rhyme or reason in the distribution of luminescence throughout the plant or animal kingdom. It is as if the various groups had been written on a blackboard and a handful of sand cast over the names. Where each grain of sand strikes, a luminous species appears. The Coelenterates have received most sand. Luminescence is more widespread in this phylum and more characteristic of the group as a whole than any other. Among the arthropods luminous forms crop up here and there in widely unrelated groups. In the mollusks, excluding the cephalopods, only two luminous species are known. Several phyla contain no luminous forms whatever. It is an extraordinary fact that one species in a genus may be luminous and another closely allied species contain no trace of luminosity. There seems to have been no development of luminosity along direct evolutionary lines, although a more or less definite series of gradations with increasing structural complexity may be traced out among the forms with highly developed luminous organs."

In a great majority of organisms the production of light has no known biological significance. In a few it serves to bring the sexes together, in some it may function in capturing food, while in others it appears to act as a protection against enemies.

The amount of light produced is so small that it has no practical value. The method of production is, however, extremely efficient. Practically all of the radiant energy involved in the production of light in living beings is visible. In our artificial methods of producing light, the greater part is heat. The author maintains (p. 58) that the luminous efficiency for the fire-fly is 99.5 per cent and that for a carbon glow lamp only 0.43 per cent. It is consequently evident that in the production of light it would be highly desirable to imitate the fire-fly, and the author is inclined to think that this may perhaps be successfully done.

The author has put the ideas presented above and many other related ideas in a very interesting form. They have, however, also been stated in attractive form by various other authors. It is in his treatment of the chemistry of the production of light that he excels. This part which occupies practically one half of the book not only contains subject matter of great scientific value but is a model of scientific literature worthy of emulation. It is to be commended particularly for the absence of excessive generalizations so prevalent in the scientific productions of a number of present day biologists.

The author introduces the subject with a comprehensive historical review and then proceeds to present the results of his own work and that of Dubois and others. It will be impossible in the allotted space to give the reader even a superficial idea of the methods and results obtained, all that can be done is briefly to set forth some of the principal conclusions:

1. The light producing substance in organisms can be dried and kept indefinitely without losing the power of producing light in the presence of water and oxygen. Life is therefore not necessary for the emanations of light.

2. In addition to water and oxygen there are at least two substances involved in the productions of light. One is known as luciferin, the other as luciferase. Neither of these substances has been isolated, but they can be separated owing to differences in physical and chemical properties.

3. Luciferase is a protein, probably an enzyme. Luciferin is probably a peptone. The former is destroyed by boiling, the latter is not. However, neither the luciferase nor the luciferin produced in different organisms is precisely the same, e. g. the luciferin produced by the ostracod, *Cypridina*, emits light if mixt with luciferase of the same species but it will not emit light if it is mixt with luciferase produced by the fire-fly, *Luciola*, or the mollusc, *Pholas*.

4. The production of light is associated with the oxidation of luciferin forming oxyluciferin. The production of light depends, however, upon the nature of the oxidation. Luciferin can readily be oxidized without the production of light. In some species light is produced only if the luciferin formed is oxidized in the presence of luciferase, e. g. *Cypridina*. In others, *Pholas*, e. g., it accompanies oxidation of luciferin produced by various agents such as  $\text{K Mn O}_4$ ,  $\text{H}_2\text{O}_2$ ,  $\text{BaO}_2$ ,  $\text{PbO}_2$ , hypochlorites and the blood of various animals.

5. Oxyluciferin can be reduced to luciferin by bacteria, extract of muscle-tissue, milk palladium black,  $\text{H}_2\text{S}$ , and the luciferin can be again oxidized with the production of light. Thus light can be produced probably indefinitely from the same luciferin by alternate oxidation and reduction. The author thinks this is what occurs in nature. In the fire-fly flashes of light are produced at intervals. During the flashes, he thinks, the luciferin is oxidized forming oxyluciferin and during the intervals between flashes the oxyluciferin is reduced forming luciferin.

6. Light similar to that produced by the oxidation of luciferin can be produced by the oxidation of various other substances, e. g. phosphorus, sodium, pyrogallol, etc. Chemical production of light is consequently not confined to living organisms.

I have so thoroly enjoyed reading and reviewing the work before me that I hesitate to offer any adverse criticism concerning it. However, while this work is entirely free from anything in the nature of dogmatism, there is in the point of view of the author a certain tendency toward narrowness which should be considered.

He says (p. 102): "Fortunately biological science has advanced beyond the stage where a living process can be explained by calling it a vital process, and we must fall back upon the idea of a photogen oxidizing with light production," and (p. 39) "The light from luminous animals is due to the oxidation of some substance produced in their cells, and when we can write the structural formula of this photogenic substance and tell how the oxidation proceeds, the problem of light production in animals will be solved."

In the first of these two quotations the author, if I understand him correctly, intends to criticise his predecessors for holding views which tend to limit and discourage investigation. The justice of his criticism is questionable. Personally I do not believe that biological science was ever in a stage when the statement that "a living process is a vital process" constituted an explanation to any considerable proportion of biologists. But, however this may be, it seems to me



that the author in his statement in the second quotation that "the problem of light production in animals will be solved when we can write the structural formula of the photogenic substance and tell how the oxidation proceeds", lays himself open to precisely the sort of criticism he has directed against his predecessors: for the essence of the production of light in organisms concerns the questions as to why it is produced quite as much as the question as to how it is produced. It concerns the question as to the regulation of the phenomenon within the organism and its relation to other phenomena within and outside and its phylogenetic origin and biological significance quite as much as the question as to the chemical changes associated with it. In other words, the problem of the production of light in animals appears to me to extend far beyond the limits set by the author. Knowledge concerning the chemical changes immediately associated with the production of light in organisms is of great importance but it appears to me to afford an explanation of the phenomenon only in a very narrow sense. And the same might be said regarding practically all other biological phenomena. Changes in material configurations immediately associated with vital processes are profound in their significance, but to ascertain these changes is by no means the only aim of biology.

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THE PHYSICAL BASIS OF HEREDITY: THOMAS HUNT MORGAN, Professor of Experimental Zoology in Columbia University. One of the "Monographs on Experimental Biology", Edited by Jaques Loeb, T. H. Morgan, and W. J. V. Osterhout. J. B. Lippincott Company, Philadelphia and London, 1919. 305 Pages and 117 Illustrations. Price, \$2.50.

In his "Physical Basis of Heredity" Professor Morgan has brought together concisely some of the vast amount of data on inheritance which have been accumulating since the re-discovery of Mendel's principles two decades ago. The work of Morgan and his students on inheritance in the fruit fly has already become a classic in biology, making him one of the leading authorities on inheritance in the world. Their intensive study of this animal has revealed some two hundred variations (mutations) in form and color, making the fruit fly appear to be quite as composite a creature as the domestic dog or chicken. The ease and rapidity with which this fly can

be bred, together with its great variability, render it an exceptionally favorable object for the study of that fundamental question of life-inheritance.

By cross breeding the different varieties of the fruit fly it has been possible to show with a high degree of probability that there exists in the cell a mechanism of inheritance, which Morgan and his school have located in the chromosomes. Thus certain characters such as gray body color and long wings, when crossed with black body color and vestigial wings, tend to stick together in subsequent generations; so that a majority of the descendants from such a cross in the second and later generations are similar to their progenitors (gray long or black vestigial) while only a few show a recombination of characters (gray vestigial or black long). All of the characters of the fruit fly thus far studied (and new ones continue to appear) may thus be grouped by means of their "linkage" relations into four groups corresponding to the four pairs of chromosomes of the fruit fly's cell. And, moreover, the number of characters in each group is closely proportional to the size of their chromosomes. By means of these crossing experiments and of the keen analysis which Morgan and his students have given them, it has been possible to explain many puzzling facts in inheritance. Thus, to take an example from another type of animal, the mouse, it is known that yellow mice never breed true. This, according to Morgan's analysis, is due to the presence in mice which are pure for yellow, of a "lethal" factor which prevents their development, consequently pure yellow mice are unknown.

The book is not devoted exclusively to the author's own work, but attempts to bring into line with his theory a large number of the results of other workers.

An adequate review of so comprehensive a work is impossible in brief space, so that mention of but one or two points must suffice.

If we follow the author's interpretation our old conceptions of dominance and recessiveness will "go by the board" for we learn, page 35, that "in every generation of notch, many notch flies have normal wings", even tho "the character (notch) is dominant". Thus, page 34, "it is often only a convention as to which type is called the dominant and which the recessive...."

While the evidence in favor of the chromosome hypothesis is well nigh conclusive, there are some facts which it cannot as yet satisfactorily explain. The as yet occasional, but increasing number of cases of "sex intergrades" have not been brought into accord with it, and these cases are dismissed with a summary and far from con-

vincing discussion in the book; while in the few too brief paragraphs treating of the puzzling condition of hemaphroditism, no mention is made of the "indifferent" sexual condition in vertebrates in which both male and female organs are present for a time.

In the very brief discussion of the embryological evidence for the chromosome hypothesis no mention is made of the fertilization of egg fragments, which certainly calls for consideration here.

The chapter on mutation brings out little of interest, except that mutation and orthogenesis, may after all not be very different from one another; while the author's protest (p. 266) against an "innate principle", 'urge', 'vis-a-tergo', 'kick', or 'vital force' may with equal propriety be urged against the mutation theory, for what is it after all that causes mutation"? And "there y'air" as Mr. Hennesey says.

The book is unfortunately marred by a very imperfect style of writing. Professor Morgan is so thoroly imbued with his subject that he appears to take it for granted that his readers will be as familiar with its many intricacies as is he, so that clearness of diction has been a secondary consideration with him. Much of the discussion also is so condensed as to be unintelligible without a very special knowledge of the subject, or reference to the literature which the author cites, and yet the publishers advertise the book as a "college text".

Carelessness in proof reading is also apparent in several places. Thus, p. 63, "In other words for the principle of assortment it should male having the wild-type color (dominant) is bred to come".

The physical make up of the book is mostly good, but some of the lettering and descriptions of the figures is so poor as to render them almost worthless.

Taken all in all the book is a reference work of some value for the student of genetics, altho it is too brief to adequately serve this purpose; while few laymen would have the patience to pursue it to the end. It is therefore neither literary "fish, flesh, or good red herring".

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POLITICAL AND COMMERCIAL GEOLOGY and the World's Mineral Resources. Edited by J. E. SPURR, Editor of Engineering and Mining Journal. McGraw-Hill, New York City. 1920. 561 Pages and 22 Illustrations.

"Who Owns the Earth?" This striking question has been the stimulus to the production of a book that should have a wide appeal to students of economics, of politics both national and international, and to every reader who would be informed of the distribution of ownership of the mineral resources of the earth.

The volume is the outgrowth of a series of studies conducted during the war to inform our Government about the distribution and ownership of raw material which we needed in quantity but much of which was not produced within our borders. Much of our foreign commerce was dependent on the movement of these commodities. When shipping became scarce and uncertain there was need for comprehensive knowledge of this commerce. The need is no less now.

The book is of composite authorship carefully edited. Each chapter is written by a specialist, the essential minerals or mineral products being treated in the following order: Petroleum, Coal, Iron, Manganese, Chromium, Nickel, Tungsten, Vanadium, Antimony, Molybdenum, Radium and Uranium, Zirconium, Monazite Thorium and Meso-thorium, Copper, Lead, Zinc, Tin, Mercury, Bauxite and Aluminum, Emery and Corundum, Magnesite, Graphite, Mica, Asbestos, Phosphate rock, Potash, Nitrogen, Pyrite and Sulphur, Gold, Silver, Platinum.

A final summary by the editor on the international aspect of mineral products could well serve as the basis of a lesson in Americanization. The control of the world's resources is a vital problem to the future of America. We can no longer smugly hide behind the doctrine of "I will leave you alone, you leave me alone." We have grown to greatness without any definite policy regarding our mineral industries except to prevent too much solidarity while Germany long ago recognized the necessity of alliance of Government and Business. Other nations seem to be making definite efforts to profit by the lessons of the war, "but in America dropping all the problems and half-learned lessons of the war, we return to the *status quo ante*." It would seem that a comprehensive survey of the ownership of raw materials would necessarily precede any intelligent solution of international problems. The book is a definite start. It is the first serious contribution to our literature of the international aspect of minerals, and the relation of geology to industry, commerce, and political economy.

The volume is profuse with tables, maps, and graphs that give rapid visual summaries. The volume furnishes potent food for thought for any complacent browser that may have pre-conceived notions about our greatness not founded on fact.

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NATURE STUDY AND AGRICULTURE: CHARLES C. SCHMIDT, Professor of Education, University of North Dakota. About four hundred and fifty illustrations. D. C. Heath and Company, Boston, New York, and Chicago, 1920. VIII+460 Pages. Price, \$1.60.

To educators occupied with the eternal warfare against ignorance and avarice, the study of Nature, amid the increasing vocationalism of the schools, is an encouraging symptom. The teaching of Agriculture alone, even in the lower grades, too often initiates the young pupil into habits of mercenary emulation against which he should be guarded at least during the educative process. The combination of Nature-Study with Agriculture seems likely to correct this evil. For the lover of Nature can never be altogether mercenary; once let a child or a man come to look upon natural objects with a sympathetic insight, forgetting economic values for the time, and he thereby comes to be less of a computing-machine, and more humane. It is not without significance that one of the greatest poets, writing on education, included Nature-Study in his curriculum.

It is with pleasure, therefore, that one takes up Professor Schmidt's little volume. Perhaps the title should be more specific; either of the two subjects therein combined, as an art founded upon a number of special sciences, would furnish material enough for an encyclopaedia. The author, however, has selected his topics judiciously, and presented them in an attractive way. The introductory matter of the several chapters is succinct, and well calculated to rouse interest. The objects chosen for study are those that come under the daily observation of the country-bred child, and the descriptions appropriately blend the scientific, the merely curious, and the useful. One might take as an example Chapter VIII, entitled *Some Prairie Flowers*. The introductory matter calls attention to a simple instance of adaptation to environment, always a fascinating subject; the flowers selected comprise a large number of the most attractive. The meaning of the name, when especially significant, is explained; the more noticeable features of identification are pointed out; the

qualities useful to man are enumerated; and there are not wanting bits of sentiment, and even literary allusions, in order to the sustaining of interest.

The concluding chapters on Agriculture proper do not fall below the rest of the work in quality. The importance of machinery on the farm is a well-chosen point, concisely treated; here as elsewhere the historical aspect of common things is happily brought out. The lucid paragraphs on accounting are especially commendable in recognizing the fact that a human element enters into the matter.

The language of the book generally is simple yet dignified, and well adapted to juvenile readers. One could wish, indeed, that such provincialisms as *lumber* in the sense of *timber*, and *raise* for *grow*, *breed*, or *rear*, had been avoided. Yet the reviewer has seen more pretentious volumes that were greater offenders in this respect. The work is handsomely printed, abundantly illustrated with photographs and drawings, and contains a serviceable index as well as a moderate amount of bibliographical suggestion for the teacher. The numerous "projects" arrange for practice in connection with the reading, and seem to open unlimited possibilities of individual study, wherein, after all, lies the only true source of lasting interest in Nature. Altogether, this textbook seems well suited for giving young pupils, to use the words of the poet before spoken of, "such a real tincture of natural knowledge as they shall never forget, but daily augment with delight."

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ELEMENTS OF ELECTRICAL ENGINEERING: RALPH PRESTON CLARKSON, Ivan Curry Professor of Engineering in Acadia University, Wolfville, Nova Scotia. A textbook of Theory and Practise, particularly adapted for the Instruction of Mechanical, Civil, and Chemical Engineers and Others desiring a Short Course. D. Van Nostrand Company, New York City, 1920. XVI+187 Pages. Price, \$2.00.

This book is an abridged text covering a wide field in which are included physics and electrical engineering. It represents a style of textbook for which there arose a large demand during the world war,—a demand which has persisted and has resulted in the appearance on the market of a number of more or less useful books containing elementary information on electrical topics.

The author has had in mind the needs of students who are not specializing in electrical engineering and those who have not had



preparation in higher mathematics. The brief but comprehensive discussions are fully illustrated by diagrams and excellent half-tone pictures, there being a total of 143 figures. At frequent intervals there are groups of problems which exemplify the text in a practical manner. A number of tables containing useful engineering information are included. There is a complete table of contents and the book is well indexed.

Taken altogether, it is a neat, convenient, and useful text, and is more than usually well adapted to the purpose for which it was written.

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INBREEDING AND OUTBREEDING: EDWIN M. EAST, Harvard University, Bussey Institute, and DONALD F. JONES, Connecticut Agricultural College Experiment Station. One of the "Monographs on Experimental Biology", Edited by Jacques Loeb, T. H. Morgan, and W. J. V. Osterhout. J. B. Lippincott Company, Philadelphia and London, 1919. 285 Pages and 46 Illustrations. Price, \$2.50.

Why has society outlawed the marriage of near kin and whence has come the wide-spread fear among breeders of close breeding in their stock? In their recent discussion of breeding the authors have attempted to answer this puzzling question. According to them the answer lies in the workings of Mendelian inheritance. Continued inbreeding of either animals or plants renders the stock homozygous or similar in germinal constitution, like strains being sifted out and isolated from one another. As a result of this sifting process unfavorable characters, heretofore hidden because the factors necessary for their expression have not been brought together, may crop out. Vice versa, increase of vigor, which frequently occurs as the result of crossing (witness the mule) is due to the combination of favorable characters brought into the cross by more or less unrelated stocks. Inbreeding per se is not injurious and is indeed the method which the breeder uses to "fix" any variety of plant or animal which he desires to perpetuate.

If inbreeding results in combining favorable rather than unfavorable characters then its results are beneficial rather than the reverse. Witness "Goliath, one of the largest albino rats ever recorded—the product of six generations of the closest possible inbreeding" by Helen Dean King at the Wistar Institute in Philadelphia. Among

plants there are many species in which self fertilization is the rule, while Egyptian royalty and the Incas of Peru practised marriage customs regarded as incestuous by modern society.

Nevertheless the authors, as a result of their breeding experiments on corn, apparently regard continuous inbreeding with disfavor. Why inbreeding in corn should have invariably bad results cannot be easily explained on the sole basis of the hypothesis above outlined, however.

If cross breeding is of advantage, and has therefore largely dominated inbreeding in the natural reproduction of both animals and plants, why should not conjugation in Protozoa be invariably beneficial? This is a stumbling block in the authors' path which they themselves admit, but make no effort to explain, merely contenting themselves with the remark that "it would be strange if no such effect did occur in low forms when it is so wide spread in all the higher plants and animals."

The discussion of the bearing of their findings upon human inheritance adds little new light to this time-worn but not thread-bare topic. If inbreeding tends to expose the skeletons in our physical and mental closets, therein lies the danger of close mating in man. If on the contrary hybridization results in increased vigor therein lies the hope of the future product of our great American "Melting Pot", but "these racial crosses must not be too wide else the chances are too few and the time required is too great for the proper recombinations making for inherent capacity to occur".

The style of the book is in general lucid, considering the difficulty of the subject, and its physical make up is good, but few typographical errors having crept in. All in all it gives a valuable summary of what little knowledge we have, but makes no distinct contribution in the way of new material.

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A DICTIONARY OF SCIENTIFIC TERMS: HENDERSON, I. F. AND W. D. D. Van Nostrand Company, New York City. 1920. VIII + 354 pages. Price, \$4.50 net.

This book aims to give the "pronunciation, derivation, and definition of terms in Biology, Botany, Zoology, Anatomy, Cytology, Embryology, Physiology". This worthy ambition of the authors is hardly realized in this first edition, but will probably more nearly

reach the mark in later editions. At present, it is an excellent compilation of the terms used in the more limited field of Morphology, with scattered selections from other sciences; to cover these other fields, it will have to be considerably extended. In Botany and Zoology, for instance, it is highly desirable, from the student's standpoint, that the etymology and pronunciation of the generic terms be given; yet in this text these terms have been largely omitted. If Physiology is to be included, there must be introduced many chemical terms now omitted as, for example: *amino acids* (general and particular), *protease*, *amylase*, *glycogenolysis*, *dextrose*, and others.

Words derived from the Greek *lipos* are listed at some length, but there is an inadequate representation of those derived from *leipo*, especially when one considers the frequency of the latter's occurrence in biological literature, and its as frequent mispronunciation and misapprehension by students.

Another point: Is the Greek combining form *schiz* to be rendered in English by *schiz* or *skiz*? The Hendersons give the option, with preference for the former; some other dictionaries give the latter only.

On the whole, however, the book is a handy tool for those for whom it is intended. Its range of usefulness will be increased in later editions thru the constructive cooperation, solicited by the authors, of workers in cognate fields.

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# University Notes

## **Legislative**

Higher education is expensive, expensive for the

## **Appropriation**

State and expensive for the student. It costs

money. So do most things that are worth while, and some things that are not worth while. And, like other things, higher education costs more money now than it has in the past. It costs more for two reasons: in the first place, and chiefly, because other things—groceries, clothing, fuel, rent, books, equipment of all kinds—cost more; in the second place, because more people are eager to benefit themselves by higher education. But it is higher education that enables a State, a Nation, especially a Democracy, to progress. For it is only by means of higher education that leadership is procured. Higher education provides our teachers, our preachers, our editors, our engineers, our physicians, our lawyers, our students of finance, of business, of commerce, of government, our leaders in art and literature—all our leaders. "It comes high" but we must have it. All in all, tho its results are sometimes not quite as tangible as are the results of some other lines of activity, investments in higher education usually pay larger dividends than do investments in anything else. It is because of this intangible nature of the results that it is always difficult to secure adequate appropriations for carrying on and advancing the work. But in a Democracy that must ever be true because the great majority of the people see only with the eyes. Objects appeal but the essence of things, the spirit, the soul, are invisible—can not be visualized therefore lack full appreciation. The matter was further complicated this year by the unusual stringency in the money markets and by the general unrest pervading all lines of thought and activity in the state.

The University administration tried to plan wisely and conservatively for the needs of the biennium, omitting everything not thought to be absolutely necessary to keep the institution functioning somewhat normally. The State Board of Administration was in full sympathy with the modest requests made in the budget, and urged its endorsement by the Budget Commission of the Legislature. But the requests were seriously cut by that body and, in that condition, passed on to the Assembly itself. Had no changes been made the institution would have been very seriously crippled, but friends rose upon all sides and the outcome, while requiring unwise retrenchment and while failing to provide adequately for the inevitable growth of the institution, is yet much more satisfactory than was at one time

feared. Below is given in parallel columns the budget requests and the amounts finally appropriated :

	Amount Requested	Amount Appropriated
Maintenance, after deducting local income	\$955,297	\$870,950
Buildings and Special Improvements:		
(a) Special Improvements including sidewalks, special repair items, boilers for power plant, etc.....	103,856	57,000
(b) Combined Law School & Recita- tion Building .....	157,825	150,000
(c) Library Addition .....	83,100	
(d) Residence Hall for Boys.....	114,150	
(e) Addition to Power Plant and A. C. Generator .....	21,000	20,000
(f) Concrete Tunnel to Chemistry Building .....	3,200	
(g) Public Service Work:		
1. Public Health Laboratory.....	40,519	30,000
2. Biological Station .....	8,000	6,000
3. Geological Survey .....	7,000	6,000
4. Clay Testing .....	7,600	7,600
5. Mining Station .....	29,500	29,000
	<hr/> \$1,531,047	<hr/> \$1,176,550

In addition to the above items which appeared in the State Budget Bill an appropriation of \$76,610 was made to take care of the deficit incurred during the past biennium.

**The Summer Session** Several years ago, in the early days of the University, the State Department of Education, in conjunction with county superintendents of schools of nearby counties and with the University authorities, established a summer school at the University. Its one purpose was to give the rural and other elementary teachers an opportunity for study at a time when the regular schools of the state were not in session. The response on the part of the teachers was gratifying. At first only elementary instruction was given—quite elementary. But ere long more was demanded and—provided. It was the old story, the appetite grew—the more they got the more they wanted. And it was a standing object lesson. High school teachers began to come and for a double purpose, for better equipment and for college credit. Then the regular University students began to see that at least a portion of the long summer vacation might profitably be used in study. The needs of these two new classes of people were supplied by the University adding a College Section in which regular college courses were of-

ferred and college credit given. These courses were eagerly taken and increased attendance in both sections indicated appreciation. But a few years ago the Elementary Section was discontinued, perhaps thru a feeling that it had come to be regarded as a "short cut" and that, without it, young people would take the longer and therefore more extensive work of the normal schools. Perhaps its discontinuance did win some to those institutions. But yet it has again been felt that there is still a very real work for a summer school for elementary teachers—a place where, during the summer weeks, rural school teachers and prospective rural school teachers can get elementary instruction in both academic and professional subjects. So the Elementary Section has been reinstated. The two lines of work will be kept strictly separate but yet excellent opportunities offered for both grades of students. A more detailed statement of the lines of work to be offered will be found in the advertising pages.

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**The Nielson Prizes** Miss Minnie J. Nielson, Superintendent of Public Instruction in North Dakota, has recently started a movement that promises to be of great interest to the students of the University and of service to the people of the state. She has established at the University three prizes for the biographical study of North Dakota pioneers. She desires in this way to commemorate the services of these pioneers and thus to preserve, before it is too late to secure them, the records of the men and women who early settled in the state and laid the foundations of the commonwealth. Miss Nielson has named her prizes after her mother, one of the pioneer settlers of the state, calling them the "Mary Stewart Nielson Prizes for Biographical Sketches of the Pioneers of North Dakota." They are to be offered under the direction of the Department of English and to be, as the name indicates, individual sketches of actual North Dakota pioneers. The prizes are to be three in number and are worth while—\$25 for the first, \$15 for the second, and \$10 for the third. Competition will be open to members of the junior and senior classes. Each sketch is to be from 1200 to 2000 words in length and to be deposited with the University Registrar by the 20th of May of each year. They will be judged on the basis of historical accuracy, rhetorical correctness, and human interest, the judges to be appointed by the Head of the English Department.

A very worthy service is this, and the Quarterly Journal congratulates Miss Nielson upon its conception and execution. It expresses the hope that the idea will be "catching."



**Quarterly Journal  
Coming Issues**

The desirability of moving along the lines of the thought underlying Miss Nielsons splendid action, as mentioned above, has long been in the mind of the editor of the *Quarterly Journal*. It has already worked itself out in planning for some future numbers of the publication. He has felt not only that the services of the pioneers should be commemorated but that the details of the work they have done should be gathered while it is still possible to do so. To be sure, many of these early commonwealth builders have already gone to their reward. But many are still among us—many who have figured prominently in all forms of state building. And many others there are who, thru personal acquaintance with the early pioneers, are literally storehouses of information that should be secured and placed in permanent form before these too have passed beyond. Bearing out this thought, three numbers have already been definitely planned and others are in contemplation. The July number of this year, for example, is to cover a brief history of education in North Dakota. The detailed table of contents will be found on its Bulletin Board on the first page of this issue. Nearly all the writers have served the state for many years in its educational field. Besides looking to their own memory for material they are calling upon old acquaintances for added information, also ramsacking all the old records available. A later issue will perform a similar service in regard to the early years of the University. Men and women who were closely in touch with the institution in the early days are the writers. A still later issue will be a reminiscent number covering various phases of the life during pioneer days in the state. The studies here are being prepared by men and women who lived and acted during the times which they represent. This, to be sure, is the same line of work that is interesting the State Historical Society, but too much of it can not be done. It should be looked upon from all angles.

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**Buenos Aires and  
North Dakota**

In September, 1918, the University of North Dakota welcomed the coming of two young Frenchwomen who became members of the student body and for two years followed the regular course to graduation. The personality and scholastic distinction of these young women made a most satisfactory impression; it was also felt that the University students had benefited from the international fellowship and association thus initiated. This was clearly the hope of the American Association of Colleges which originated the idea and of the French Government and

its Department of Education which co-operated in making its realization possible. And, judging from the appreciation of these young women, the benefit was mutual and thus has been realized the hope expressed in these Notes when the young women came to us:

"These young women come to continue their education, of course, but even more they come to interpret to American students and to the American people the spirit of the land of their birth—the France which we have all come to honor and revere. They have also come to learn about America at first hand—of our ideals, our points of view, our democracy. For they are going back after a while—after their period of study—and contribute to the great rebuilding of France. They are going to give to us and to receive from us, and both countries are to benefit by the movement."

This experience coupled with the growing interest in Spanish suggested to some that it would be both desirable and practicable to initiate a similar interchange between the University of North Dakota and some South American University. The idea was presented to several distinguished gentlemen and was cordially received, especially by Senor Tomas A. Le Breton, the Ambassador of Argentina, who volunteered to take up negotiations with the University of Buenos Aires. His intervention was so effectual that on July 30, 1920, the University received from Rector Lobos of the University of Buenos Aires a communication of date June 24, 1920, to the effect that the Faculty of Economic Sciences had passed the following resolutions:

The Faculty of Economic Sciences resolves,—

Art. 1—That two students from this Faculty, with the title of National Public Accountant, who have been conspicuous as good scholars and who have a thorough knowledge of the English language, shall be invited to follow their studies at the University of North Dakota.

Art. 2—The Faculty shall provide for all the expenses necessary for the transportation of the said students, and the University of North Dakota shall be responsible for the expenses of these students while attending that University.

Art. 3—Two students from the University of North Dakota, engaged in a commercial course shall be invited to continue their studies at the Faculty of Economic Sciences. For this respect, the Faculty will secure the inclusion in its budget of two seminary aids, to be reserved for the said two foreign students, whose duties shall be those of translations and researches.

Before the University of North Dakota could grasp the hand thus held out, it was necessary to secure administrative approval and the necessary funds. The Board of Administration formally approved the plan and the item was included in the budget. It is hoped that matters can now be hastened so that the Argentinians may come to us at the opening of our year in September and that our two representatives may go to Buenos Aires for the beginning of the University year in March, 1922.

President Nicholas Murray Butler, several years ago, remarked that "the greatest need of Americans in the twentieth century is to learn to think internationally." The presence of Mlles. Letessier and Bentegeat has been of great assistance to us and it is hoped that with the coming of the young men from Argentina we may be able to grasp hands with Latin America as successfully as we have done with France.

While the interchange suggested above is clearly in line with what is being done in several other institutions, under the fostering care of powerful national and international agencies at home and abroad in an effort to promote international relations thru education, the work here was taken up independently. Credit is due almost wholly to the Head of the Department of Romance Languages, Dr. Henry R. Brush, for the inception of the idea and for so handling it as to receive the endorsement of the University administration and the support of its governing board. It is an arrangement out of which we are expecting much benefit not only to the young men "exchanged" but also to all who shall come into contact with them, even to the two commonwealths co-operating.

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**The Dakota Playmakers** The Dakota Playmakers, under the direction of Professor Franz Rickaby, and freshly dedicated to the cause of amateur drama in the territory served by the University, are making the present year a significant one in their history. It is the initial year of a new and more vigorous program of service to the State, evidenced on the one hand in dramatic productions at home and abroad, and on the other in published native plays, descriptive lists of plays suitable for amateurs, and classes for the training of those who expect to guide or help to guide dramatic activities in various communities. The year has also seen the establishment by the Society of the American Drama Collection, to be housed in the University library and contributed to generously from the proceeds of each year. The Collection is designed for students of the American Drama. Its nucleus was a large number of plays written



or produced in America between 1820 and 1860, and several volumes of criticism and memoirs.

The Playmakers' public and private productions, tho not many, have been of unusually high quality. The annual spring production—this year, "A Rose O' Plymouth Town", by Dix and Sutherland, in recognition of the Pilgrim Tercentenary—has just returned from a week's tour thru the State with a success summed up by the critic in the *Bismarck Tribune*: "An amateur production appears to be one thing—and a production by the Dakota Playmakers quite another."

There is yet to come the annual program of the three prize plays chosen from those written in the University course in Dramatic Composition, under the Director of the Society. And there is yet to come the Pilgrim Pageant, to appear in the already widely-known Bankside Theater on the University campus, a pageant written by University students under faculty guidance.

Plans for the coming year crowd fast on the heels of the achievements of the present one—plans looking toward this institution's greatness, toward the dramatic expression of this State's life and her contribution to the Larger Whole.

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# Editor's Bulletin Board

As suggested on the Bulletin Board of the April number of the Quarterly Journal, this number covers the history of education in North Dakota. We greatly regret that two phases of the study as planned, Elementary Education and Financial Support, have to be omitted. But the writers have thus far been unable to secure the data necessary for an adequate presentation. It may be lookt for later on. A later issue of the publication is planned to cover the general topic "A Bird's Eye View of Education in North Dakota with Suggestions for Betterment", the emphasis to be thrown on the latter phrase.

With this issue Volume XI is completed. The first number of olume XIII will be found in the field of the political and social sciences. Five timely and interesting discussions are at hand: Dr. Burwash, last year's exchange lecturer from the University of Manitoba, allows us to use his Convocation address on "Canada and the Empire"; Dean Willis of our own Law School, whose former articles in our columns have been much called for, presents a study on "Why Consideration in Contracts"; Professor Vold, also of our Law School, who has already contributed notable studies to our columns, gives an interesting and timely discussion of "Legal Separation of Function in University Organization"; Mr. D. J. Tinnis, who has written much and thought more on our economic situation, writes on "The Fair Dollar", and Mr. B. A. Lance, a man of broad sympathies, a wide reader, a close observer, and an independent thinker, discusses "Equal Opportunity and Corporatism". The articles are all stimulating, clearly up-to-date in thought and content, and are worthy of careful study.

## Announcement

The Quarterly Journal is a periodical establisht and maintained by the University of North Dakota. Its primary function is to represent the varied activities of the several colleges and departments of the University, tho contributions from other sources are welcomed.

Subscriptions are solicited. The price is nominal, \$1.00 a year or 30c a single number. Address communications to the Quarterly Journal, University, North Dakota.



# The Quarterly Journal

PUBLISHED BY

The University of North Dakota

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A. J. LADD,  
EDITOR

NORMANDEN PUBLISHING CO.



# The Quarterly Journal

VOLUME II

JULY, 1921

NUMBER 4

## The Education of Teachers

JOSEPH KENNEDY,

*Dean of the School of Education, University of North Dakota*

I conceive my present task to be a short account of the education and training of teachers in North Dakota from the time of the admission of the state into the Union—and even before, insofar as my memory reaches back, corroborated by records and by the testimony of those whose residence in the Territory and whose service to education go back to an earlier date.

### I. PROFESSIONAL AGENCIES FOR TEACHERS IN SCIENCE

On coming to the Territory in 1886, the writer found the certification of teachers in the hands of a Territorial board of education, of which A. Sheridan Jones of Olivet (S. D.) was president, and Territorial superintendent, and John W. Cowan of Valley City, vice president. Mr. Jones died during the winter of 1886-7, and the following spring the administration of the schools of the Territory and the certification of teachers passed into the hands of a new Territorial board consisting of Eugene A. Dye of Mellette, president of the board and Territorial superintendent; Frank A. Willson of Bathgate, vice president; and George A. McFarland of Scotland (S. D.), secretary.

Under the new administration (Harrison's) A. C. Mellette was appointed Governor of Dakota Territory (1898); he appointed Leonard A. Rose of Fargo, Territorial superintendent, and C. M. Young of Deadwood, secretary. These held office during the short period remaining till statehood, November 2, 1889.

### The North Dakota Teachers' Association

Even in the days before the political division of the Territory, owing to the inconvenience of travel on account of long distances and to the consequent rivalry, educational as well as political, there had been, up to 1884, a teachers' association for the northern half.

I am indebted to Rev. S. A. Danford, principal at Lisbon in

1884, county superintendent of Sargent county in 1885, and in more recent years presiding elder in the Bismarck district, for the following program of the association, the facts in regard to which are embodied in the program itself. I include this here for its historical interest and value:

# NORTH DAKOTA TEACHERS' ASSOCIATION

Sessions held in  
The High School Building, Fargo  
June 24 and 25, 1884

## Order of Exercises

### *Tuesday*

1. Organization.
2. The Teacher's Duty to Himself - - C. H. Clemmer,  
Jamestown
3. Some Points in Teaching Grammar - S. A. Danford,  
Dexter, Ohio
4. Relation of Politics to the Body Politic - Hon. J. A. Healy  
Ass't Ter. Supt.

### *Tuesday Evening*

Lecture: "Individuality" - - Rev. W. M. Blackburn, D. D.,  
President of the University of North Dakota

### *Wednesday*

5. Supply and Demand — Miss Clara O. Prindle, Co. Supt. of  
Ransom Co., Lisbon
6. School Discipline: The End and Means — Geo. A. Stanton,  
Jamestown
7. Inducements to Teach - - Wm. Travis, Pembina

But the association, for one reason or another, was allowed to lapse, and a reorganization was frequently discust by correspondence and at casual meetings. During the early fall of 1887 a meeting was called at Grand Forks by Mr. Frank Willson of Bathgate, the vice president of the Territorial Board of Education, for the purpose of organizing (or reorganizing) the North Dakota Educational Association. There were present at that meeting, along with Mr. Wilson: Superintendent C. H. Clemmer of the city schools of Grand Forks, Superintendent W. A. Kelly of Traill county, Superintendent M. A. Shirley of Grand Forks county, Superintendent C.



E. Jackson of Pembina county, and Joseph Kennedy, then superintendent of the Hillsboro schools.

The call for a meeting to reorganize the North Dakota Educational Association was entrusted to Mr. Willson, and the meeting took place in the high school building in Fargo between Christmas, 1887, and New Year's. The headquarters of the association was the old Headquarters Hotel, near where the Northern Pacific depot now stands.

### *The Meeting*

The sessions were devoted largely to organization. The veteran educator, John Ogden of the Milnor Normal School (a private institution), later state superintendent of public instruction), was chosen president for the session and delivered what might be considered the principal address; Joseph Kennedy of Hillsboro was chosen secretary, and W. R. Bierly, then editor of the Grand Forks News, was chosen editor of the association.

Dr. Homer B. Sprague, who had recently been elected President of the University, delivered his masterly address on Milton on the first evening of the meeting.

#### THE ASSOCIATION, A PROFESSIONALIZING AGENCY

It would not be entirely relevant to this paper and would take us too far afield to discuss in detail the organization thruout its history. I have given a few of the early events of the organization and of the first meeting of an institution which, thru the years, has been no small factor in generating the wholesome and inspiring atmosphere that has helped mightily in the professionalizing of teachers in North Dakota.

#### SOME CHARTER MEMBERS

The following is a photographic facsimile of the signatures of a few of the men and women, who, as pioneers in the upbuilding of the profession in the state, attended that first meeting in Fargo. Many of them, like Eugene A. Dye, John Ogden, W. R. Bierly, and M. A. Shirley, have gone to the reward of the good; while others, like George A. McFarland, J. M. Devine, H. D. Allert, C. E. Jackson, Mattie M. Davis, Dr. R. M. Evans, and Fred W. Cathro, are still laboring in the vineyard. I wish space and relevancy permitted me to pay the tribute they so richly deserve, to both the living and the dead.

Englem A. Dye  
 C. J. Suter.  
 John Agden  
 W. J. Wray.  
 Geo. A. McFarland  
 C. Thompson  
 E. Winter  
 W. R. Pierly  
 W. J. Dwyer  
 W. B. Allen  
 C. C. Jackson  
 Cora S. Pease  
 Nettie McLean  
 Flora E. Austin  
 Mattie M. Davis  
 R. M. Evans  
 Fred. W. Castro  
 M. A. Shirley

— At Fargo Convention in 1887 —

PRESIDENTS AND PLACES OF MEETING

In the history of the State Educational Association the following is a list of its presidents, secretaries, and places of meeting thru the years:

Date	Place	President	Secretary
1887	Fargo	John Ogden	Joseph Kennedy
1888	Jamestown	Homer B. Sprague,	Joseph Kennedy
1889	Grand Forks	Wm. Mitchell	O. P. Rider
1890	Fargo	M. A. Shirley	W. M. House
1891	Grand Forks	A. L. Woods	Miss E. C. Lewis
1892	Valley City	J. M. Devine	Manie Porter
1893	Wahpeton	L. B. Fancher	E. M. Warren
1894	Hillsboro	C. E. Jackson	W. F. Lorin
1895	Grand Forks	Joseph Kennedy	W. L. Stockwell
1896	Fargo	W. T. Perkins	W. L. Stockwell
1897	Grand Forks	W. E. Hoover	L. H. Allen
1898	Fargo	E. J. Taylor	George Martin
1899	Grand Forks	W. L. Stockwell	George Martin
1900	Fargo	G. A. McFarland	A. M. Simpson
1901	Grand Forks	Miss E. M. Stout	George Martin
1902	Fargo	W. E. Hicks	George Martin
1903	Grand Forks	C. C. Schmidt	A. P. Hollis
1904	Fargo	J. H. Worst	A. P. Hollis
1905	Grand Forks	Joseph Carhart	A. P. Hollis
1906	Fargo	P. S. Berg	A. P. Hollis
1907	Grand Forks	Vernon P. Squires	A. P. Hollis
1908	Valley City	Mattie M. Davis	C. R. Travis
1909	Minot	A. P. Hollis	C. R. Travis
1910	Bismarck	Fred E. Smith	C. R. Travis
1911	Fargo	N. C. Macdonald	C. R. Travis
1912	Grand Forks	S. Henry Wolfe	C. R. Travis
1913	Fargo	J. Nelson Kelly	W. E. Parsons
1914	Bismarck	C. R. Travis	W. E. Parsons
1915	Grand Forks	A. G. Crane	W. E. Parsons
1916	Fargo	M. Beatrice Johnstone	W. E. Parsons
1917	Bismarck	E R. Edwards	W. E. Parsons
1918	No meeting on account of the epidemic of influenza.		
1919	Minot	R. M. Black	W. E. Parsons
1920	Grand Forks	A. C. Berg	W. E. Parsons
1921	Fargo	G. W. Hanna	W. E. Parsons

DIVISIONAL ORGANIZATIONS

In 1894 what was known as the Tri-County Teachers' Association was organized for Grand Forks, Walsh, and Pembina counties. This organization was, for over twenty years, a potent factor



and influence for professional betterment in the state. It was merged into the Northeast Division of the State Association in 1920.

Similar organizations have existed for the southeastern, the southwestern, and northwestern portions, and these in turn have merged into corresponding divisions under the reorganization. These sectional divisions are integral parts of the North Dakota Teachers' Association.

#### SECTIONS AND ROUND TABLES

In co-operation with or as parts of the State Educational Association, sectional meetings and round tables have been held, whose purpose has been the exchange of professional thought and the standardizing of professional practise; and these have remained important factors in supplementing, improving, and stimulating good practise among teachers. Thought, like water, seeks its level, and the leveling under such circumstances is always upward.

These sections and round-tables have been a part of the state association almost from the first. In the beginning the division was usually transverse, giving rise to the elementary section, the section on secondary education, and that on higher and professional education. This classification still obtains; but in addition there have been added sections or round-tables on individual subject-matters since about the year 1900, growing more numerous year by year, until now almost every specific field has a professional organization.

#### The High School Conference

One of the most active and, I think, the oldest subdivision of the state educational association is that on secondary education, whose membership is made up of high school teachers, principals, and city superintendents. In addition to their annual meeting as part of the state association, it has been a custom of long standing—reaching back to the early years of President Merrifield's administration at the University—for those representing high-school interests to meet, as guests of the University, some time in May, in what has been called, since 1898, "The High School Conference". From 1894 to 1898 this body was called "The Schoolmasters' Club". At this conference various educational problems have been discussed, especially those pertaining to the secondary field.

It was thru the influence of President Merrifield and the High School Conference that the work of pupils was standardized thru legislation and what was known for many years as "The High School Board."

As a matter of history it may be of interest and value to note that the whole plan of examinations, with a state examiner, was inaugurated at a meeting of high school principals, county superintendents, and representatives of the University and the normal schools, called by State Superintendent John Ogden and held in Fargo in October, 1891. A committee consisting of Superintendent John Ogden, President Webster Merrifield, and Superintendent Darius Steward of Fargo was appointed to put into operation what was then substantially the Minnesota plan of articulation between the high schools and the state university. A second committee consisting of President Webster Merrifield, Superintendent A. L. Woods of the city school at Grafton, and County Superintendent Joseph Kennedy of Traill was appointed to memorialize the next legislature for a subsidy to such high schools of the state as should consent to work under the proposed plan. At a meeting of the state educational association in Grand Forks in December, 1891, unanimous endorsement was given to the plan. Both houses of the succeeding legislature passed a bill embodying the plan, but it was vetoed by Governor Andrew H. Burke on the ground of lack of funds. But the plan was carried out gratuitously by President Merrifield till financial aid finally came.

Thruout its history the Conference has been a professional and professionalizing body of the most influential kind. It has been in a large and true sense the professional leaven in the educational lump in North Dakota, and deserves this mention as a factor in the education of teachers

#### Scant Provisions in Early Days

Reverting to the early days, it is needless to say that only scant provisions existed for the systematic preparation of teachers in early Territorial days. In fact, such provision was meager at that time even in the older states. The normal schools in most parts of the country were then thought to be in the experimental stage, and but few schools or colleges of education existed in the United States. In the 80's "departments" of education were just beginning to emerge noticeably above the horizon, and most of the older academic types of pedagog conceived it to be their duty to take a shot at the head of every person who advocated special professional preparation for teachers.

## II. PROFESSIONAL AGENCIES IN STATE INSTITUTIONS

## The Normal Department at the University

But the Territorial legislature of Dakota, away back in 1883, had a vision of teacher-training and its necessity far in advance of the time. In the organic law, or act, of that year, establishing the University for the northern half of the Territory at Grand Forks, the "Normal College, or Department" for the training of teachers was made a charter member. It was thus the first professional school for the preparation and training of teachers in North Dakota, antedating statehood by five years. The curriculum of this department, up to 1905, included, academically and professionally, the equivalent of two years of college work beyond the high school. Its primary aim was the preparation of teachers for the elementary schools and for the smaller graded and high schools of the state.

In 1905 the Board of Trustees established "Teachers College"—extending the previous Normal curriculum to four years above the secondary school. The advanced curriculum had for its aim the preparation of men and women as teachers for high schools, as principals for graded and high schools, as superintendents, and as teachers and supervisors of special lines of work. In 1911, in conformity with a reorganization, the name was changed to "The School of Education."

## The School of Education

The function of the School of Education is the professional preparation of teachers, especially for secondary schools. Its curriculum leads to the degree of Bachelor of Arts or Bachelor of Science and to the Bachelor's Diploma in Teaching. The latter is accredited by law as a first grade professional certificate.

The School of Education also grants the Teacher's Certificate to those who complete two years of college work, academic and professional, above the high school, and this certificate is valid in law as a second grade professional certificate.

Special certificates in music, art (including drawing), manual training, and commercial subjects are granted to those who have specialized in those lines and have done at least two years of college work.

The School of Education and the University High School are housed in a commodious building of their own, known as Woodworth Hall.



The University High School is under the direction of the School of Education, and is used for observation and actual teaching and for the study of problems of secondary education. It is under direction of a faculty who give their whole time to its work, thus insuring favorable conditions in every respect.

### *The Normal Schools*

The normal schools at Valley City and Mayville were created by constitutional provision in 1889 and received land grants by the constitution from the general government—Valley City, 50,000 acres; and Mayville, 40,000 acres. Both schools have continued as flourishing institutions from that day to this.

### *The Valley City Normal School*

Reverend J. W. Sifton was the first president of the Valley City Normal School, serving from 1890 to about March, 1892. Miss Emma F. Bates, later State Superintendent of Public Instruction (1894-6), and Miss Lura Perrine, both leading instructors in the school, carried on the administrative work till the close of the year.

George A. McFarland, at one time secretary of the Territorial Board of Education (1887-1889) and editor of the *Dakota Educator* at Scotland, South Dakota, became president of the normal school August 1, 1892, and continued in that capacity until 1919. Under his administration the Valley City Normal School became a flourishing institution and one of the best known normal schools in the northwest.

During its entire history the school has had only three presidents: J. W. Sifton, George A. McFarland, and C. E. Allen, the last named being called to the presidency in 1919 from the normal school at Carbondale, Illinois.

The Valley City Normal School has recently been authorized by the Board of Administration, under the law, to extend its curriculum to four years and to grant the degree of Bachelor of Arts in Education. The former curricula and diplomas remain unchanged.

### *The Mayville Normal School*

The normal school at Mayville held its first session on the second floor of the City Hall in Mayville in the spring of 1891, with James McNaughton as its first president. That year it secured a campus of 10 acres and in 1892 completed a part of one unit of a building. In 1893 L. B. Avery succeeded Dr. James McNaughton as president and served till 1895, when the appropriations for all

the educational institutions of the state were vetoed by Governor Roger Allen. When the people rallied to the support of the school, as in the case of the other institutions, J. T. Perigo was called to the presidency and served until 1897. Joseph Carhart was called to the head of the institution in that year and served until 1909, when Thomas A. Hillyer became president. President Hillyer served for ten years, or until 1919, when John O. Evjen was chosen president.

### *New Normal Schools*

Originally the constitution provided for only two normal schools, one at Valley City and one at Mayville. The "fathers" and framers of the constitution evidently thought that the eastern portion of the state would continue forever to be the whole state—as it practically was in the early days. They even provided in the constitution that no similar schools than those provided for in the constitution in 1889 should ever be established without amending the constitution. But the people make and amend constitutions when necessary or desirable.

### *The Minot Normal School*

As the central and western parts of the state were settled up, there was a vast empire of territory in the northwest and in the southwest without state educational institutions or advantages, and so in 1907 the tenth legislative assembly provided for the submission to a vote of the people, of an amendment to the state constitution providing for the establishment of a new normal school at Minot. The amendment was passed by the eleventh legislative assembly in 1909, was submitted to the people in 1911, and was adopted by an overwhelming majority. The twelfth legislative assembly appropriated \$200,000 for maintenance and buildings. A. G. Crane, superintendent of schools at Jamestown, was chosen president, and the school opened its doors for the reception of students in September, 1913, in temporary quarters. The institution has had a rapid growth from the first. It is the center of a vast empire of territory and of a rapidly increasing population.

### *The Dickinson Normal School*

Prior to 1916, the legislature had provided for an amendment to the constitution for the purpose of establishing another normal school at Dickinson to accommodate the territory west of the Missouri river. In 1916 both political parties in North Dakota carried

a plank in their platforms advocating the establishment of such a school. The amendment was ratified by the people in the election of 1916 by an overwhelming majority and the legislature of 1917 made an appropriation for the new normal school at Dickinson. But the Governor felt constrained by financial necessity to veto the appropriation for a building, but left \$20,000 for maintenance. The summer school at Dickinson, in 1918, presided over by Superintendent P. S. Berg, may be regarded as the opening session of the Dickinson Normal School. In July, 1918, Samuel Thomas May of Madison, South Dakota, was chosen first president of the school, and under his direction this institution is having a rapid and healthy growth.

### Other State Institutions

By constitutional provision a "School of Science" was located at Wahpeton, a "Manual and Industrial School" at Ellendale, and a "School of Forestry" at Bottineau. Almost from the first these institutions assumed, along with their constitutionally specific function, that of teacher-training. This was only natural, as teachers were in demand more than any other class of public servants. These institutions have continued to exercise that function up to the present time, along with the original one contemplated in their establishment. Indeed the teacher-training function has probably become the dominant one in their later life.

## III. MISCELLANEOUS AGENCIES

### Teachers' Institutes

The "Teachers' Institute" of one week has been, in North Dakota, as elsewhere, a subsidiary agency in the education of teachers. This has been true in this state back to Territorial days.

The institute as a regular institution was brought to Dakota from the older states and has served here as elsewhere as a kind of educational rally and revival—a generator of educational spirit and attitude. In this respect it has been worth while; altho at best it has always been a kind of tacit admission of the weakness of the teaching profession.

It has been the law and the custom from the beginning that the state or territory pay the week's salary of the conductor (\$50) on a voucher properly certified by the county superintendent. The county institute fund has always paid for assistance and other expenses. The institute is still maintained as one of the agencies in the training of teachers in North Dakota.



## Summer Schools

Another agency for the education of teachers has been the summer school. This originated as a joint institute for several adjacent counties, prolonged to two weeks. The counties pooled their institute funds under authorization of law and the Department of Public Instruction. The summer school then developed into a four-weeks session, and this type was in vogue from about 1895 to 1910. These summer schools were held, as a rule, at the educational institutions, and the latter co-operated in the work, both in the way of furnishing members of the faculty and in helping to finance the school.

This gave rise about 1910 (tho the transition was gradual) to the regular institutional summer session, at the various educational institutions. In this last type of summer school regular institutional courses have been offered, for which students have earned credit receivable later toward the completion of a regular course. These institutional summer schools, during recent years, have been held for a period of six weeks, and are now being held for twelve weeks at the normal schools.

## Papers and Journals

The first professional paper for teachers (so far as I know) in the Territory was the *Dakota Educator*. The writer remembers this as it was in 1888, when it was published in Scotland, South Dakota, by George A. McFarland, secretary of the Territorial Board of Education from 1887-1889, later president of the Valley City Normal School, and now superintendent of schools at Williston.

The first educational journal in the state of North Dakota was the *Common School*, begun in 1889 at Grafton by A. L. Woods, superintendent of the Grafton schools, and later county superintendent of Walsh county from 1892 to 1898. This journal was afterwards sold to *School Education*, Minneapolis, Minnesota.

The publication of the *Westland Educator* was begun in 1889 by W. G. Crocker, a pioneer in education in North Dakota and for many years county superintendent of Ransom county. This was discontinued in 1917.

The publication of the *School of Education Record* at the University was begun in October, 1915. Its aim has been to create and maintain, so far as possible, a stimulating professional atmosphere, to provoke thought on the problems of the day, and to be, in a modest way, a light and a leading in safe and sound educational thought and practise. The *Record* is sent *gratis* to anyone inter-

ested, and is edited by Joseph Kennedy, Dean of the School of Education.

Another journal—not strictly professional but educational—known as the *Quarterly Journal* has been published since 1910 by the University under the editorial management of Dr. A. J. Ladd, Professor of Education. It is a forum for the discussion of more advanced educational thought and for the expression of the findings of men in research work in the more advanced fields of investigation.

As educational journals are or should be agencies in the development of a professional attitude and spirit, these North Dakota attempts in that direction deserve mention among the factors in the education of teachers.

### Teacher Training in High Schools

Dating from about 1905, the practise has been in vogue in North Dakota of offering in high schools, to prospective teachers, the study of elementary psychology, pedagogy or school management, and what are called "senior reviews": that is, a review of and a more comprehensive study of English grammar, arithmetic, United States history, and civics than was possible in the grammar grades. These are presented, presumably and professedly, from the point of view of the teacher, and give at least a modicum of professional study and of good practise and principles on the part of the school and the teacher.

Some have maintained that this minimum of professional preparation is worthless if not an evil, saying that it is dangerous in the same way as a "little learning". But the majority of school men hold—and rightly—that such elementary preparation is valuable as far as it goes; that "half a loaf is better than no bread", and that such professional work tends to make prospective teachers inquiring and reflective, and saves them from innumerable blunders and pitfalls inevitable in a mere hit-and-miss, trial-and-error experimentation.

### Notable Workers

The accompanying cut is a photographic facsimile of the signatures of some of the men and women who, during the formative period in our state, took a notable part in our educational and professional history. As indicated some have passed to their eternal reward, some have retired from teaching, and others are still in the service, but in other states:

1. W. H. H. Beane.

2. D. B. Kitchin

3. W. M. Lillie.

4. Homer B. Thompson

5. Webster Merrifield

6. C. H. Blummen

7. Devost

8. Wm. Lusk

9. P. L. Kierollton

10. Thos. A. Kiley

11. John H. H. H. H.

12. H. B. Woodworth

13. Alice W. Cooley.

14. Laura J. Eisenhuth

15. Emmie F. Bates

16. A. F. Beck Solt

17. M. Stearns

18. Melom A. Braumon

19. Geo. S. Thomas.

20. Frank L. McKay

21. J. Nelson Kelly

22. Lys of Perrotto



**Explanatory Notes**

1. General Beadle, Territorial superintendent from 1875 to 1885, and later president of the Madison (S. D.) Normal School, died in San Francisco in 1915.

2. Dr. Kiehle, at one time state superintendent of Minnesota, and later professor of education at the University of Minnesota, gave the dedicatory address at the laying of the corner stone of the University of North Dakota in 1883 and was offered the presidency of that institution. He died in Portland, Oregon, in 1918 at the age of 81.

3. Captain Mitchell was elected county superintendent of Cass in 1888 and state superintendent in 1889. He died in office March 10, 1890.

4. Col. Sprague was president of the University from 1887 to 1891. He was a noted writer and orator. He delivered the Commencement address at the University in 1916. He died at Newton, Mass., March 20, 1918 at the age of 89.

5. Dr. Merrifield served the University as professor and president for twenty-five years—seventeen as President. "None knew him but to love him; none named him but to praise." "Old Main" building has been named "Merrifield Hall". He died in Pasadena, Cal., Jan. 21, 1916.

6. C. H. Clemmer was superintendent of schools at Jamestown in the early days, and at Grand Forks from 1887 to 1894. He now resides in California.

7. Dr. J. H. Worst was county superintendent of Emmons, a member of the Constitutional Convention and of both house and senate at Bismarck, lieutenant governor, president of the Agricultural College for many years, and is now Commissioner of Immigration at Bismarck.

8. Dr. West was professor of history and education at the University during the year 1891-2, and was then called to the University of Minnesota. He is the author of the West series of histories, and is now engaged in writing and in farming at his country home near Grand Rapids, Minn.

9. Dr. Knowlton was professor of philosophy and education and dean of Fargo College from 1897 till his death in 1913. He was a man of singular earnestness and power, and will long be remembered as a great Christian scholar and teacher.

10. President Thomas A. Hillyer was at the head of the Mayville Normal School for ten years, and is now completing work for his Doctor's degree at Columbia University.

11. Dr. Macnie came to the University at the opening and served almost up to the time of his death, 1909. He was a remarkable scholar in almost every field. His 'Far Look Ahead' was the cue, if not the substance, of Bellamy's "Looking Backward". He was widely read and was a great linguist and mathematician. A building is named for him at the University.

12. Professor Woodworth also came to the University practically at the opening and remained connected with it as one of its greatest and most beloved teachers till his death in 1906. He was the first principal of the Normal Department at the University, and the School of Education building is named "Woodworth Hall" for him.

13. Alice Woodworth Cooley, daughter of Professor Woodworth, was for some years supervisor of primary work in the Minneapolis schools, was co-worker with Mr. W. F. Webster in the Webster-Cooley

Language series of textbooks, and was assistant professor of education at the University up to 1905. Mrs. Cooley died in 1910. She was a woman and teacher of rare talent and of the greatest charm and strength of character.

14. Mrs. Eisenhuth was County Superintendent of Foster county in the early days and was then elected to the state superintendency in 1893. Mr. Eisenhuth died about 1895 and in more recent years Mrs. Eisenhuth re-married and is now living on the western coast.

15. Miss Bates was instructor in the Valley City Normal School, was a successful institute conductor, and was later state superintendent of public instruction,—1895-7. Later she engaged in educational and missionary work in the far east, and died about two years ago in California.

16. Dr. A. F. Bechdolt was professor of English at the University from 1892 till the maintenance appropriation was vetoed by Governor Allen in 1895, when he accepted a call to the University of Washington. It was Professor Bechdolt who introduced football into the University of North Dakota. He is now living in Bellingham, Wash.

17. W. L. Stockwell came to the state in 1889 as superintendent of schools at St. Thomas. He then served for several years as superintendent of schools at Grafton and as instructor in University summer schools. He was elected State Superintendent in 1903 and served for eight years with marked efficiency. He is now secretary of the masonic bodies in North Dakota, president of the Northern School Supply Co., and resides in Fargo.

18. Dr. M. A. Brannon came to the University as professor of biology in 1893. Later he became Dean of the School of Medicine and then of the College of Liberal Arts on the resignation of Dr. Thomas. In 1914 he was called to the presidency of the University of Idaho where he remained till his resignation in 1917 to accept the presidency of Beloit College, a position which he still holds.

19. Dr. Geo. S. Thomas came to the University about Jan. 1, 1893, as professor of Greek and Latin. When the University was organized into colleges and schools, in 1905, Dr. Thomas was made Dean of the College of Liberal Arts, a position which he held till his resignation and retirement from teaching in 1911. Dr. Thomas and his family now reside in Woodstock, Ill.

20. Dr. Frank L. McVey came to the presidency of the University in 1909 from the chairmanship of the Minnesota Tax Commission. He had previously been professor of economics at the University of Minnesota. President McVey resigned the headship of the University of North Dakota in 1817 to accept the presidency of the University of Kentucky at Lexington.

21. Mr. Kelly became superintendent of schools in Grand Forks in September, 1894, and continued till his resignation in June, 1919. Mr. Kelly still resides in Grand Forks and is engaged in extensive farming operations in the Red River Valley.

22. Professor Perrott, an Oxford man, came to the University in 1891, and continued on the faculty till his death in 1916. He was a classical scholar and endeared himself to all by his modest, genial, and cultured ways.

#### IV. CONCLUSION

##### The Teacher, the Foundation

It may be well to say a few words in regard to our present

status and the needs and ideals of the future. The whole problem of education and schools is one of *teachers*: live teacher, live school; dead teacher, dead school. Great teachers and leaders make great schools and great systems of schools; while weaklings will prevent any vocation from being a profession in the true sense. A school plant, no matter how complete in its appointments, will not teach alone: as there must be a man behind the gun, so there must be a professional teacher behind the desk, and on the educational bridge or lookout.

### The Three Essentials

The strong teacher has the endowment of a closely knit personality; he has "push" and initiative; he is winning and enthusiastic; he is a "live wire", either by nature or early development. Many of the great teachers of the ages have impressed the world chiefly by this characteristic.

In this age of complicated social life the great teacher must also have a fulness of knowledge and a wealth of experience, especially in the field, or subject-matter, in which he is engaged.

There is also a third factor which has become essential in this age of general and universal education—especially in a democracy like ours where all the children of all the people are put into our educational mills—and that is systematic preparation for the great art of teaching, which was considered by Plato, even in those ancient and comparatively simple times, one of the two most complicated arts in the world.

### Our Low Standards

In this state and country we are far from realizing this reasonable ideal. We have no standards that are at all adequate to sift out and reject the incompetents on any or all of the three great requisites—personality, learning, and professional preparation. The whole lower field—probably half the teachers of the nation—could not qualify on any of the three grounds; and the upper field—the college and university—is sadly lacking, as a rule, on the grounds of personality and professional competency.

The whole output of our normal schools is absorbed at once by the towns and cities, and the rural schools of the state and nation must take what is left. And the rural schools are much alike the country over in quality and in needs.

Our standards for teaching in the rural schools of America now vary from the completion of the elementary school with a small



smattering of pedagogy, to the completion of the high school or its equivalent. Our new law provides for high school graduation as a minimum after 1923. It is yet to be seen whether it will be enforced. But how can mere boys and girls from eighteen to twenty years of age be inspiring personalities and leaders of schools and communities, with tact, prudence, enthusiasm, and experience? Full-grown men and women in society can not look *up* to such youths, or be drawn to them for advice and guidance. Hence such teachers must be in the position of being looked down upon in a patronizing way. The line of entrance to the profession must be drawn still higher if we would eliminate this whole class of youthful if not childish and frivolous practitioners in the most important and sacred function permitted to human beings.

### Higher Standards Needed

This will mean that the standard for teachers, thruout the whole country, should be raised in the near future, to a minimum that would mean high school graduation or its equivalent, and in addition at least one, if not two years of professional preparation for teaching.

For high school teaching the minimum educational qualification should be graduation from a standard college including a reasonable amount of professional preparation and a period of apprenticeship, corresponding somewhat to that required of the doctor; and for teaching in the field of higher education, a reasonable minimum of professional preparation should be required in order to give the prospective teacher the proper approach, attitude, and procedure in his special field. Indeed where the candidate for the Master's or Doctor's degree has teaching in mind, at least one of his minors should be in Education.

Such standards and requirements would insure stronger, more mature, and more experienced personalities, and a broader and deeper scholarship.

### Standard, Personality, Salary

Three things go up and down together: the standard, the personality, and the compensation. When the standard is raised, the small personalities of meager education are sifted out, and the larger ones are retained; but to retain them a higher salary must be given. On the other hand, where almost any one may teach, there will be competition among the weaklings, and salaries (more properly wages) will fall. The writer once knew of an application of a

teacher which read, "I will teach for less than anybody else". In my opinion, the compensation of teachers will have to be doubled in order to retain and attract the kind of personality and qualifications needed. At present in teaching, just as in the ranks of labor, some get more than they earn, while others do not get half as much as they deserve.

### Mere Examinations, Poor Tests

Mere intellectual examinations are poor tests of the fitness for teaching. The true standard should imply more. In fact the mere intellectual examination could well be dispensed with altogether in most cases. An intellectual examination is implied in attendance at and graduation from an accredited and standardized school. I should accord more credit and privilege to a young person for a year's attendance at school or college than an examination of an hour or two in each of several subjects. These examinations are usually the most perfunctory and useless performances, and the markings of examiners, who are strangers, are often utterly unreliable and worthless.

### Teaching Should be Professionalized

Teaching should be made a real profession by setting minimum standards for qualification and admission to its various fields, elementary, secondary, and higher. The profession ought to be "closed" by reasonably high standards. Teaching being a complicated art and science, the preparation and certification of teachers should not be allowed to drift or happen, but should be grappled as a problem, both state and national, which deserves our most serious thought and co-operation, to the end that our state and country may soon come to a solution that will result in the most professional body of teachers in the world.

# Higher Education in North Dakota

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of North Dakota*

The bond of union between higher education in North Dakota and that in other, notably eastern, states, is close; indeed the connection goes beyond these to older countries. There is little in North Dakota education that has sprung from the soil; much that is a development of ideas appearing in older commonwealths. It is a truism that the pioneer brings with him the system of ideas with which he has been acquainted and holds such with affectionate tenacity. Hence the historian may trace not only the course of empire westward but innumerable paths of ideas, following, in general, parallels of latitude. Members of legislatures have not infrequently perused the statutes enacted in older states and, while often achieving improvements, have nevertheless in the main followed blazed trails.

So with education. The majority of our instructors have been trained in eastern institutions and have come to North Dakota with the ideals and traditions associated with their alma maters. In faculty meetings, as far back as academic memory goes in North Dakota, teachers have risen to cite precedents from beyond the Red River, which gesture of admiration has not been without effect. One must not be understood to maintain, however, that our higher education is wholly derivative and lacking in spice and variety or in vigorous and individual qualities.

The background of higher education in North Dakota embraces dim courses of descent and blurs perception with a mass of detail comparable in quality to that which, pertaining to private affairs, washes out of mind from day to day. Repetitious acts of academic routine and classroom instruction, of faculty conference and administrative adjustment—these things expand the literal record but may be economically relegated to inference.

The State Agricultural College, with its land grant and statutory military training, recalls the Civil War period and the then failing agriculture of the middle west, but beyond the 60's we catch glimpses of Charles A. Dana and Emerson and Hawthorne on Brook Farm, indulging the back to nature idea, and still farther back, as a land grant college inspiration, remote tho it be, we behold the dramatic



fervor of Rousseau, and, in the distance of Roman days, Horace on his Sabine farm, and Columella composing his treatise on agriculture.

Not only can the impulse toward the naturalistic and scientific in our higher educational system be traversed thru centuries, but, similarly, the classical, philosophical, and cultural elements of university program are obvious in former periods of academic history.

The causes that were acting to produce institutions of higher education in other parts of the country at an earlier date were formative influences upon higher education at its inception in North Dakota. The law of Wisconsin providing for a state university was followed in establishing the University of North Dakota. Provisions abroad for the training of teachers suggested the setting up of normal schools in Massachusetts, New York, and other states in the middle of the 19th century. It was a logical development that normal schools should be provided for in the early legislation of this state, and, as in the older states and particularly as in Germany, normal instruction was organized apart from other higher learning. This failure to insure close relationship between normal and collegiate instruction has colored the history of higher education in North Dakota and has given rise to certain administrative problems.

Instruction of college grade free to all was required by Section 148 of the state constitution, adopted October first, 1889; it reads as follows: "The legislative assembly shall provide at its first session, after the adoption of this constitution, for a uniform system of free public schools thruout the state, beginning with the primary and extending thru all grades up and including the normal and collegiate courses."

A further provision (Section 152) reads thus: "All colleges, universities and other educational institutions for the support of which lands have been granted to this state or which are supported by a public tax shall remain under the absolute and exclusive control of the state. No money raised for the support of public schools of the state shall be appropriated to or used for the support of any sectarian schools."

Historically antecedent to the enactment of these sections was the increasing recognition of the importance of provision for professional instruction and of the civic need for educated men. State universities had made their appearance and by 1889, the date of the admission of North Dakota as a state, it had become clear that the path to successful higher education lay thru public support and the avoidance of the sectarian impasse. Land grants, available since

1787 for higher education upon the admission of new states, were a foundation upon which our higher institutions could build.

The motive for the establishment of the University was expressed in a memorial to Congress drafted at the second session of the legislature of North Dakota territory: "There is needed, for the more advanced education and discipline of our youth, a university of high grade and character, for it is our belief that such an institution is as essential to the preservation of our republican institutions as is the common school." The language of Section 4 of the first Morrill Act (1862), establishing land grant colleges, declares that "the object shall be, without excluding other classical and scientific studies and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts—in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life." Hence both the civic and industrial interests of society were specifically recognized in the founding of the University and the Agricultural College. It may be added that emulation among the principal towns of the state was a moving cause for the actual establishment of our institutions of higher learning. Boosters for the different towns of the eastern part of the state sought to secure the location of state institutions within their limits. The failure to foresee agricultural development in the western part of the state, as well as the activities of townsmen in eastern North Dakota, resulted in the location by the constitutional convention of the state institutions in the eastern part of the state.

The state institutions of higher education and the dates when first opened for students are as follows:

- University at Grand Forks, September 8, 1884
- Agricultural College at Fargo, October 15, 1891
- Normal School at Valley City, October 13, 1890
- Normal School at Mayville, December 1, 1890
- Normal and Industrial School at Ellendale, September, 1899
- School of Science at Wahpeton, September, 1904
- School of Forestry at Bottineau, January 7, 1907
- Normal School at Minot, September, 1913
- Normal School at Dickinson, Summer, 1918

Land grants were provided for the state institutions named in the enabling act, thru which enactment North Dakota was admitted as a state in 1889. The allotment was as follows:

State University .....	86,080 acres
School of Mines (a department of the state university) .....	40,000 acres
Agricultural College .....	130,000 acres
Normal School at Valley City.....	50,000 acres
Normal School at Mayville .....	30,000 acres

The proceeds from these lands "constitute a permanent fund, the interest of which only shall be expended in the support of said schools." None of the land may be sold for less than \$10 an acre. Income from the land grant forms no inconsiderable portion of the fund necessary for the maintenance of the institutions benefiting therefrom. The Agricultural College receives income under acts of Congress for land grant colleges. State appropriations are another source of support of the state schools. For a number of years, from 1901 to 1915, when the mill tax was repealed, the educational institutions were maintained in part from a mill tax. This tax of one mill was apportioned by the law of 1901 as follows:

University .....	.40
Agricultural College .....	.20
State Normal School at Valley City .....	.12
State Normal School at Mayville .....	.12
School for the Deaf .....	.13
School of Forestry .....	.03

In 1911 the apportionment was revised and made to include the School of Science at Wahpeton and the Industrial School at Ellendale. The new apportionment was then:

University .....	.33
Agricultural College .....	.20
State Normal School at Valley City .....	.15
State Normal School at Mayville .....	.13
School for the Deaf .....	.06
School of Forestry .....	.02
School of Science .....	.04
Industrial School .....	.07

At the present time (1921) interest is being shown in the reenactment of legislation providing for a mill tax.

The University is the oldest state educational institution of North Dakota. It opened with a faculty of four, consisting of a president who was professor of metaphysics, a vice president who was professor of natural science, an assistant professor of Latin and Greek, and a preceptress and instructor in English and mathematics.



All of the 79 students, the total attendance for the first year, were below college grade. The teaching staff increased in seven years to 13 and the number of students to 151.

The first president was William Maxwell Blackburn, D. D., LL. D., 1884-1885. Henry Montgomery, M. A., Ph. D., was president, ad interim, 1885-1887. He was followed by Homer B. Sprague, M. A., Ph. D., 1887-1891. His successor was Webster Merrifield, M. A., LL. D., who served until 1909. He was followed by Frank Le Rond McVey, Ph. D., LL. D., 1909-1917, who resigned to accept the presidency of the University of Kentucky and was succeeded by Thomas Franklin Kane, Ph. D., LL. D., the present incumbent.

The growth of the University has been notable, the faculty (1919-1920) having a total of about 100 members, and the total enrollment in all colleges for the year 1919-1920 being 1032 students, exclusive of students attending the university high school, the summer session, and those enrolled in courses for correspondence study. The University has not had uninterrupted progress. Its appropriation was vetoed in 1895 by the governor as were the appropriations for the two normal schools, on the ground that the revenue of the state was not sufficient to maintain the state educational institutions. Citizens of Grand Forks and of the northeastern part of the state contributed to the support of the University, and the institution was kept open. The faculty members at that time made special financial sacrifices.

Additions to the campus have been made from time to time until it now contains 120 acres. A dormitory for men was erected in 1883 and one for women in 1889. The present buildings are Merrifield Hall, containing classrooms and administration offices; Science Hall; the mechanical engineering building with shops and mechanical laboratories; the mining engineering building, which houses not only engineering but also the University museum; Woodworth Hall, in which are accommodated the University High School and School of Education; the new armory building; Macnie Hall and Davis Hall, residence halls for girls; the new chemistry building; the Carnegie library building; the gymnasium and assembly hall; the commons building; the president's house; and the power plant. A recent statement by the president in regard to the needs for other buildings proposes a law school building, two-story additions to be put on the wings of the library building, and an additional dormitory.

On an adjacent site and affiliated with the University since 1906 is Wesley College, formerly the Red River Valley University at

Wahpeton. This is a Methodist college which has an arrangement with the University for exchange of credits. The University grants credit for work done in Wesley College in certain groups of studies, notably Bible and church history, music and elocution, such credits to the number of 32 out of a required total of 125, applying toward the B. A. degree, and Wesley College in turn issues credit for work done in the State University as preparation for any degree or certificate the college may offer.

The University organization includes a college of liberal arts, school of education, school of law, school of medicine, and college of engineering, with which is associated the school of mines. There are also the graduate department, the summer session, the extension division, and laboratories and stations. Public health laboratories are maintained at the University, at Bismarck, Minot, and Fargo. The state geological survey is under University management. A biological station is maintained at Devils Lake and a mining substation at Hebron. Other activities include those pertaining to a meteorological station of the United States weather bureau and the board of public accountancy.

The University publishes the *Quarterly Journal of the University of North Dakota*, now in its eleventh year. The *Quarterly* contains scholarly articles prepared by members of the University faculty and by other writers. Its book reviews are an important feature. The School of Education of the University publishes *The Record*, under the editorship of Dean Joseph Kennedy. *The Record* is now in its sixth year. Short articles and editorials, chiefly upon educational themes, and institutional news and personal items, with a column of humor, form the contents of this monthly.

An extended account of the University should include the names of men and women who have served on the faculty and in the administration of the University in years past. The record of the University faculty has been long and honorable with many instances of distinguished achievements. Within recent years its interest in the professional organization of teachers has placed it among the progressive forces of present day society.

The North Dakota Agricultural College, opened for the reception of students September 8, 1891, is a more recently established institution than the University, altho the federal legislation for land grant institutions dates from July, 1862. College work was opened in the basement of the main building of Fargo College in rented

rooms with five students in attendance on the opening day. During the first year 122 students were enrolled. A number of the instructors present during the first year or two of the college have remained associated with it ever since,—H. L. Bolley, C. B. Waldron, E. F. Ladd, H. W. McArdle and E. S. Keene.

The first president was H. E. Stockbridge, Ph. D., who remained in the position of president until 1895, being succeeded by Colonel J. B. Powers, a large-area farmer of the state. John H. Worst, LL. D., a former lieutenant governor of the state and member of the state legislature for several sessions, was elected president in 1895. President Worst was the college executive until the spring of 1916, when Professor E. F. Ladd of the department of chemistry was elected to the position. The election of President Ladd as United States senator from North Dakota for the term beginning March 4, 1921, brought his presidency to a close, Dean Keene of the School of Mechanic Arts being made acting president.

The campus and farm of the Agricultural College lie to the northwest of the city of Fargo and include 960 acres. Of this about 100 acres are devoted to campus, which is laid out with winding drives and is ornamented with trees and shrubs. From the bareness and the solitary building shown in early photographs of the college grounds the scene has changed to numerous structures, in summer scarcely visible thru masses of foliage, a transformation like that which has occurred in connection with not a few campuses in the prairie states.

The administration building contains executive offices, the post office, and classrooms, and is the oldest building on the campus. Francis Hall, one of the first buildings constructed, now houses the department of agriculture. Science Hall contains classrooms for the departments of biology, geology, mathematics, modern languages, education, and sociology. The chemistry building is one of the finest and most commodious on the campus; in addition are the engineering and mechanics arts building, a Carnegie library building, a mill and flour testing laboratory, horticultural greenhouses, a music hall, an armory, a veterinary building, a dairy building, barracks transformed into a "hall of industry" and stock judging pavilion, horse and cattle barns, power house, seed house, and root cellar. Ceres Hall, one of the largest buildings, provides a women's dormitory, offices, and classrooms.

The program of study consisted originally of courses in the sciences given for the most part to students of slight preliminary



education. More recently admission to college work has been permitted only to graduates of four-year high schools, and such preparatory work as is given in the College High School is designed for students whose home communities lack high school facilities.

The College is organized in schools, departments and divisions. There are eight schools,—agriculture, chemistry and technology, education, home economics, mechanic arts, pharmacy, science and literature, and veterinary science. The department of agriculture embraces divisions of applied agriculture, agronomy, animal husbandry, and dairying. The six divisions in chemistry are,—inorganic and qualitative, organic and quantitative, agricultural, food and physiological, physical and industrial, and engineering and chemistry. The department of home economics includes the division of freehand drawing and industrial art and divisions of domestic art and domestic science. The department of mechanic arts includes divisions of architecture, architectural engineering, civil engineering, industrial engineering, mechanical engineering, and physics.

Departments not the basis of schools are those of biology, English and philosophy, geology and mineralogy, history, mathematics, modern languages, public discussion and social service, and social and economic science. Work is also offered in commerce, library science, music, physical training, and military training. A model high school is maintained.

Associated with the college is the agricultural experiment station, which functions as a research department. A director and special staff carry forward the work of the station. The extension work of the institution is under a director, in whose office center the county agent work of the state, boys' and girls' club work, home demonstration work, and such activities as are provided for under the Smith-Lever act, passed by congress in 1914. Bulletins are issued by the experiment station and an editorial service is conducted, the aim of which is to place with newspapers items of practical importance.

College and State, a bimonthly, is published by the College. This periodical carries scientific articles for the layman, together with institutional notes and alumni items. College and State is now in its fifth year.

A summary of the registration of students for the year 1919-20 shows a total, exclusive of summer term students, of 1222, of whom 375 were of college grade and 201 of whom were students in the high school. The remaining 646 were distributed among the various industrial courses and winter short courses.

The State School of Science at Wahpeton, a vocational school and junior college, was established by the constitution of the state of North Dakota, which provides for the permanent location at Wahpeton of "a scientific school, . . . provided that no other institution of a character similar to anyone of those located by this article shall be established and maintained without a revision of the constitution."

The school was opened in 1903 under the name, North Dakota Academy of Science. The buildings and part of the grounds of the Red River Valley University were purchased in 1905 for the use of the school. More land was purchased later. In 1919 the state board of administration adopted a resolution affecting the school, namely, "That the semi-vocational courses be reorganized into high grade vocational courses." The school thus became a state vocational school.

There are six buildings and a campus of 30 acres. The gymnasium is one of the finest in the state. The other buildings are the main building, engineering building, Burch Hall, Science Hall, and the heating plant.

Vocational curricula are offered in agriculture, home economics, secretaryship, commerce, engineering, arts-education, and music. Several of these curricula extend to the junior year of college.

The first president was Earl G. Burch. He was succeeded by Fred E. Smith, now state supervisor of vocational education in South Dakota. The successor of President Smith and the present executive is Garland A. Bricker, who came to the position from a professorship in agricultural education at Syracuse University.

The total number of different students for the year 1919-20 was 197.

The State School of Forestry was located at Bottineau, the location being determined by an election held on November 6, 1894. The original aim of the school was "to provide practical and efficient instruction in forestry, horticulture, agriculture, nursery and greenhouse practice, manual training, home economics and academic subjects." A state nursery was established in connection with the school "to provide free of all expense except postage, trees, seedlings, and cuttings for planting within the state."

The name of the school was changed April 17, 1917, by the board of regents to the North Dakota State School of Agriculture and Forestry. The development of normal work is given as the

reason for a later change of name to the Forestry State Normal School.

The nursery grounds consist of 160 acres adjoining the city of Bottineau on the west. The main building was erected in 1908. A \$3000 greenhouse was built in 1910. A building for shop work was erected in 1917. There are also a barn, machine shed and poultry houses. A dormitory to accommodate 24 young women students was opened in September, 1919.

Land belonging to the school is used for nursery purposes and general farm crops and gardening. Vegetables required at the dormitory are supplied from the school farm.

The latest catalog shows curricula including secondary normal, one-year normal, two-year normal, two-year college, and commercial. Midwinter short courses are offered.

Agriculture and forestry are represented in the program of studies by two courses each extending over one term, based upon the text "The Essentials of Agriculture" by H. J. Waters, and bulletins on agriculture and forestry.

A school of embalming is maintained under the direction of the school. The total number of different students for the year 1919-20 is given as 217. The faculty consists of about 15 teachers. Vernon L. Mangun is the president.

The State School at Ellendale was originally designated, by the constitutional convention of 1889, as the Industrial School and School for Manual Training. The first building was erected in 1889 at a cost of \$15,000. This building is now used for home economics work. Forty-seven acres of land constituted the campus at the opening of the school. The first staff consisted of three teachers for the three departments of manual training, home economics and fine arts. A second building was erected in 1902, known as Carnegie Hall, a loan of \$35,000 having been secured from Andrew Carnegie by the trustees of the school upon their bonds. An armory was built in 1905 and a women's dormitory in 1907. An addition to the dormitory was made in 1909. A mechanic arts building was erected in 1910. A foundry, school barn, and demonstration rural school building are the additional structures. In 1910 the campus was enlarged and laid out by a landscape gardener. A school farm with live stock and field plots has been maintained since 1916. By state law military science was required to be taught and such instruction has been maintained regularly. Short courses in farm mechanics



have been offered during the winter months for a number of years. The faculty now numbers 21 and the yearly attendance of students is about 400. President R. M. Black came to the position from the School of Science at Wahpeton about ten years ago. As in the case of the School of Forestry at Bottineau the work of the State School at Ellendale has swerved in the direction of normal training. The name of the school was changed in 1907 by the legislature to that of the State Normal and Industrial School.

No note on higher education in North Dakota would be complete without a reference to efforts to maintain a suitable correlation among the state schools. A special committee, of which President McVey was chairman, made a study of the problem a number of years ago and a report embodying the committee's findings was published. More recently a survey of the state higher educational institutions of North Dakota was made, the report appearing as Bulletin, 1916, No. 27, of the federal bureau of education. This report featured suggestions for economical division of work among the institutions and the proper allocation of courses. A problem before the administrative authorities has been to secure thru the state schools the greatest service at the least expenditure of money. The original placing of the schools has made the problem difficult in view of the recent development of the western part of the state. The survey was conducted by a commission consisting of Dr. Wm. T. Bawden, Dr. Edwin B. Craighead, and Dr. Lotus D. Coffman, under the direction of the United States commissioner of education. A body of important recommendations appeared in the report of this commission. The pamphlet in which the report of the survey was published contains over 200 pages, representing an orderly and comprehensive study of the educational needs of the state and of the adjustment of institutions to satisfy them.

A further approximation to administering the state schools in the spirit of social engineering and educational statesmanship is represented in the first annual report of the board of administration for the period from July 26, 1919, to October 31, 1919, inclusive. This report is characterized by professional interpretation of educational needs and conditions and by grasp of the problem of coordinating our educational agencies, including library and extension work.

A recent note in the organization and correlation of our state schools has been sounded in a resolution (January, 1921) of the state board of administration which proposes the maintenance of the University, Agricultural College and normal schools at Valley City,

Minot, and Dickinson and the utilization of the plants of the state schools at Mayville, Bottineau, Wahpeton, and Ellendale for other than present purposes. The resolution is of summarizing and interpretative value and is quoted entire.

"Whereas, the present financial crisis appears to have emphasized the necessity for greater economy in the expenditure of public funds, and

Whereas, the experience of the board of administration seems to warrant the view that our state university at Grand Forks, our agricultural college at Fargo, and the three normal schools located at Minot, Valley City and Dickinson respectively, are sufficient to care for the needs of higher education in this state, and

Whereas, the forestry state normal school at Bottineau is situated on a branch line not far from the Canadian border, thus making its location geographically unsuitable; and the work which is was originally designed to do can be done to better advantage at the agricultural college, and its sub-stations, while the normal work which was authorized two years ago can be left to other normal and high schools, and

Whereas, the school of science at Wahpeton is located in a poor position geographically, on the extreme eastern border of the state, and the vocational and junior college work done there can be cared for even better at the nearby agricultural college, and

Whereas, the normal and industrial school at Ellendale is located in close proximity to the South Dakota line with favorable railroad service only from that direction, and is also considerably handicapped thru an unsatisfactory water supply, and the normal as well as the vocational work offered by the institution may be obtained at the agricultural college, and the other normal schools and high schools, and

Whereas, the normal school at Mayville is on a branch line and not very far from the university, agricultural college, and normal school at Valley City, all of which offer an opportunity for teacher training, and an acute water problem exists in connection therewith, and

Whereas, the experience of the board of administration indicates the need for some readjustment of state institutional work, to the end that more satisfactory service at reduced cost be given by a smaller number of institutions located more advantageously, and

Whereas, the state is in need of a separate industrial school for girls, home for tubercular incurables, home for homeless boys and girls, and more housing for feeble-minded,

Therefore, be it resolved, that it is the sense of the board of administration that no appropriations for maintenance of the aforesaid forestry state normal school at Bottineau, school of science at Wahpeton, normal and industrial school at Ellendale, and normal school at Mayville be made, but that the buildings and equipment of these institutions be converted to the use of such further charitable and correctional institutions as the state may need.

Be it further resolved, that amendments to the constitution of the state be initiated allowing for such conversion of institutions as the legislature may deem best."

The state schools were under separate institutional boards prior to 1915, in which year the legislature, as a means of centralizing administration, created a state board of regents, consisting of five members. The board of regents had general control of the University and School of Mines, the Agricultural College and Experiment Station, the School of Science, the state normal schools at Valley City, Mayville, and Minot, the Normal and Industrial School at Ellendale, and the School of Forestry at Bottineau.

The present administration of the state schools is under the state board of administration, provided for by a measure approved by referendum vote June 26, 1919, the law going into effect July 26, 1919. The board of administration consists of five members, two being ex officio members and three appointed by the governor. The state superintendent of public instruction and the commissioner of agriculture and labor are ex officio members of the board. The board of administration differs from the board of regents in that its powers not only include those of the board of regents but the powers formerly vested in the state board of education.

The leading non-state educational institutions of collegiate grade are Fargo College and Jamestown College. The former was founded in 1887 under the auspices of congregational churches of North Dakota. It maintains a college department, a model high school and a conservatory of music. Emphasis is placed upon pre-professional courses, applying to medicine, law and other professions. The declared purpose of Jamestown College is "to encourage the development of an educated Christian citizenship." It maintains eight departments: liberal arts, education, an academy, school of music, school



of business, school of oratory and physical culture, domestic science, and religious education. The campus overlooks the city of Jamestown and has upon it a number of excellent buildings, one of which is Voorhees Chapel and Commons, notable for its architecture and convenience for assembly and social purposes.

# The Education of Delinquents and Defectives

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Even a brief historical sketch of education in any modern state would be quite inadequate did it not include the institutions for the education of delinquents, defectives, and dependents. Indeed, the modernity and progressiveness of any state educational system must be rated largely according to the extent to which its leadership and resources are shared between its normal and gifted children and those who are defective morally, mentally, or physically. Having the advantage of a late start on an independent career as a state, North Dakota has from the first been guided and aided by the experiences of older states which went thru costly periods of experimentation in educational theory and slow development in ethical standards. On the other hand, the state's youth has been a handicap; North Dakota is just emerging from the frontier stage of development, and in this period of the pioneers' hand-to-hand struggle with Nature for a livelihood, their poverty of material resources has inevitably stunted and retarded the growth of all educational institutions.

This article must of necessity be brief and sketchy, and will probably be open to the criticism of lacking proper emphasis and sense of proportion. Such faults are almost inevitable where information can be gained only at second hand. However, it seems worth while at this time to take a backward glance at the history of North Dakota's institutions for her delinquents and defectives, to record the growth of material resources and equipment, to discuss the purposes of the institutions and the scientific principles upon which they are working, to note increase of enrollment, and to pay a tribute of recognition to those pioneer leaders in the field who have done the difficult work of organization. These institutions include the following, whose history will be sketched in this article: the School for the Deaf, the School for the Feeble-Minded, the Training School, and the School for the Blind.

## SCHOOL FOR THE DEAF

The deaf were the first to receive special provision for education. As early as 1880, Dakota Territory had opened a School for

Deaf Mutes at Sioux Falls. Owing to the long distance from this city to points in "North Dakota," as the northern half of the territory had already begun to be called, only five pupils from "North Dakota" attended the opening session of the school.

The Enabling Act under which the Territory was divided granted the Sioux Falls school to South Dakota and gave to North Dakota a land grant of 40,000 acres for a "Deaf and Dumb Asylum". This institution was located by the state constitution at Devils Lake.

The first legislative assembly of the state of North Dakota, meeting in 1890, passed a law opening the "Deaf and Dumb Asylum", and appropriated \$5000 for its support for one year. The citizens of Devils Lake furnished a large frame building free for two years, and in this building the school was conducted for the first three years. Mr. A. R. Spear, a deaf man from Minneapolis, who had come to North Dakota to undertake the organizing of a school for the deaf, was elected superintendent on August 1, 1890. On September 10, 1890, the school opened with one student, the daughter of W. G. Newton, of Mapleton. During the first year the enrollment reached twenty-three. Altho the first school for the deaf in the United States had not been established before 1817, since that time the education of this class of defectives had proceeded so rapidly that the North Dakota school was the seventy-fourth to be organized in this country.

In January, 1891, the state legislature appropriated \$10,000 for a building and \$16,500 for the support of the school during the next biennium. The Great Northern Railway Company donated to the state a site of eighteen acres about a mile north of town. The building was designed by Mr. Olaf Hanson, a deaf architect from Minneapolis. In the fall of 1893 the main part and one wing were finished, and the school was moved into the new quarters. But the new building was far from being adequate in comfort or convenience; there were no hospital rooms, no storm windows, no sewerage or water; the third story was left unfinished; heating was done by wood stoves, and lighting by oil lamps. And what a tremendous task to haul the drinking water from Devils Lake in barrels, when the well went dry, as it frequently did!

The legislative assembly of 1893 appropriated \$6,500 to finish the building. In 1895 the state found itself in a situation of serious financial stringency, and a number of state institutions were given no appropriations by the legislature of that year. The school for the deaf, however, was given special consideration by being granted \$16,500 for the next two years.



On May 13, 1895, Mr. Spear resigned and returned to Minnesota. It is interesting to survey this initial five-year period, essentially one of preliminary organization, to note what progress had been made. The deficiencies in material equipment already noted were numerous, but were such as to be expected in the frontier conditions and hard times prevailing in the new state. At the end of the five years, the enrollment had reached thirty-seven, and the value of the school was \$21,000. The rules for admission indicated a broad and generous policy—all deaf children from six to twenty-five years were eligible, if in good health, and from over twelve years, if sickly; admission was free, that is, all expenses except for clothing and traveling expenses were paid by the state, and if the parents were very poor, the counties might help to purchase clothing. The combined system of language—the oral and sign languages—was used from the beginning. Besides the common school branches, vocational training was required—for part of each day the girls were required to do housework, sewing, and millinery, and the boys did repair work around the school, and aided in the cultivation of farm and garden. Printing, the first and for many years the only trade for boys, was begun in 1891. The “Banner”, the semi-monthly school paper, was founded that year. In 1896 the “School Record” published four times a week, was established.

With the superintendency of Mr. D. F. Bangs, who assumed office on July 20, 1895, begins a period of gradual but steady development in all departments. For the first four years of his term no improvements were made in buildings or equipment, and the maintenance appropriation was declared to be inadequate, although attendance grew rapidly. But thereafter the material progress of the institution was marked. A wing was added on the west to the original building; stoves gave way to a steam heating plant, and lamps to electricity; and sewerage and water systems were installed. A herd of pure bred cattle furnished an abundant supply of pure milk. The land holdings were increased to 140 acres, providing amply for field, pasture, playgrounds, lawn, and trees. Two more additions were made to the main building, and a separate engine house contained room for the heating and lighting plants, laundry, printing office, and carpenter shop. In 1908 a fine ice house was built, and in 1909 a two-story hospital was erected at a cost of \$8,000, which included room for seventeen beds, and operating and disinfecting rooms. In 1911 a new and modern school building was completed at a cost of \$37,000. Within twenty years after its

establishment, the state had invested over \$150,000 in buildings and equipment.

No less gratifying was the great advance made in educational standards and in enrollment. In 1901 the legislature officially recognized the school as an educational rather than a charitable institution by changing its name to the "School for the Deaf of North Dakota," and by including it among the educational institutions which derived income for support under the one-mill tax. North Dakota was the first state in the Union to remove the stigma of charity from the deaf school.

In broadening and modernizing its curriculum the deaf school kept fully abreast with the schools for the normal children. In 1898, when a state law made physical training compulsory in all schools, it was introduced into the school for the deaf, and altho temporarily abandoned in 1903 (because of falling plaster!) this important phase of education has been given its proper place, and in the new building has ample quarters provided. The necessity of vocational training to make the deaf self-supporting is persistently reiterated in each biennial superintendent's report. In 1901, carpentry, the second trade for boys, was introduced, and much practical work was done in repairing the buildings and in cabinet making. In 1903 drawing was added to the curriculum. The first graduating class of June, 1899, had three members who had completed, besides vocational work, a ten years' course of study corresponding to the first ten years in public schools, and had been taught by the combined oral and sign systems. Beginning with the year 1902-03 the course was extended to twelve years in order to meet the requirements for admission to Gallaudet College, Washington, D. C., the only institution of higher education in the world solely for the deaf. The program was now arranged so that after grade seven the student spent half the day in study and half in manual and vocational work. A continual increase in the number taught by the oral method is noted. Literary societies were organized, new volumes were being added to the library, and a moving picture outfit was installed.

In competition with other schools for the deaf the North Dakota institution made a creditable showing at the World's Fair in St. Louis in 1904, when it was awarded a bronze medal for its classroom exhibit. North Dakota's school was the smallest and youngest state school to receive an award of this grade. An exhibit of work done in the carpentry, printing, sewing, and art departments made at the

Grand Forks State Fair in 1907 ranked first among all the exhibits from state institutions.

During the first twenty years of the school's existence its enrollment had been steadily increasing. Altogether 220 deaf children had been enrolled during this period, of whom 23 had graduated. Eight of the graduates had entered Gallaudet College for further training. At first the enumeration of deaf children had been entrusted to the assessors, and considerable agitation was necessary before deaf children were placed on the regular school census. A large part of the work of this school was recognized as consisting of educating the public in regard to its existence and the benefits to be derived from attendance. However, toward the close of this period, the increase in facilities fell behind the increase in enrollment, and a number of applications had to be placed on file.

In the spring of 1912 Mr. and Mrs. D. F. Bangs resigned their positions as superintendent and matron and retired to private life. Mr. and Mrs. J. W. Blattner were elected to fill the vacancies, and took charge of their work on July 1, 1912. During the three years of Mr. Blattner's superintendency, progress was rapid and consistent in all departments. At the end of the school's twenty-fourth year, the total number of pupils enrolled was 262, there were 30 graduates, and nine of them had gone to Gallaudet College. One of the latter returned as an instructor to the North Dakota school. A study of the occupations of both graduates and undergraduates who had left school showed that practically all were engaged in self-supporting work, their chief occupations being teaching, printing, carpentry, farming, dressmaking, and housework. By 1916 the total enrollment since the founding of the school had increased to 300, and thirteen graduates had attended Gallaudet College. In 1915-16 the yearly enrollment of students was 104 and there were fourteen instructors.

In 1916 Mr. and Mrs. Blattner accepted a position in an Oklahoma School for the deaf, and were succeeded by Mr. and Mrs. Frank Read, Jr. Mr. Read filled the office with great success until his death in the summer of 1920. The present superintendent is Mr. William C. McClure.

A notable event in the history of the school was the first reunion of students which was held at the school on June 20, 21, and 22, 1916. Fifty former students, representing all classes since 1900, were present, as was also former Superintendent D. F. Bangs. The School for the Deaf has become an Alma Mater, with a large body of loyal and devoted alumni.



The report of Superintendent Frank Read for the biennium ending June 30, 1918, gives a good statement of the equipment, aims, and methods of the School for the Deaf as it exists today. The material plant consists of six modern brick buildings—the administration and dormitory building, the school house, the hospital, the power house (with industrial shops), the dairy barn, and the stables; also several frame buildings. During twenty-eight years over 350 children have been enrolled, of whom 49 have graduated. Tuition, board, and room are free to residents; non-residents pay \$180 per year in advance. The ages for admission are from 7 to 25 years. The county superintendents are now required by law to report all cases of deafness, and public school teachers have periodically been requested to aid in locating such cases, but since fifteen counties in the state report no deaf children, it is evident that many cases are not being reported.

During nine months of the year the school has to furnish the home as well as the school environment for the children in its charge. The program of education is well adapted to furnish an all-around development of individuality. The course of study has recently been revised to meet the most modern standards of graded and high school work. The manual and vocational training given has proved to be practical. Since 1916 individual health records have been kept, and physical training is provided both by gymnasium work and out-door recreation. The artistic ability is trained by drawing, painting, and china painting. Moral and social training are offered by literary societies, Christian Endeavor, and Y. M. C. A., chapel and Sunday school exercises, and daily training in home duties.

During the thirty-one years of its existence, the School for the Deaf has made a history of progress and achievement, and has rendered notable service to the state.

#### SCHOOL FOR THE FEEBLE MINDED

Because of the larger numbers included in this class of defectives and because of the growing recognition of the necessity of institutional care and custody for them, it is probable that the school for the feeble-minded should be considered the most important of the institutions for defectives.

Under the territorial government a wing of the Penitentiary building at Sioux Falls had been erected at a cost of \$30,000. The Enabling Act granted this building to South Dakota, and provided that an equal sum should be given by the federal government to

North Dakota. Thru a curious and inexplicable error the state and federal officials seemed to have played at cross purposes for several years in the location of this institution. By a subsequent Act of Congress, the penitentiary building was located at Grafton, and the Secretary of the Interior purchased forty acres for a site and called for bids. The people thought this was intended for a federal penitentiary, and it was not known until 1893 that it was to be a state institution. Meanwhile the state constitution had located the penitentiary at Bismarck and it had been built there. Section 215 of Article 19 of the State Constitution had located "a state hospital for the insane and institution for the feeble-minded in connection therewith at the city of Jamestown", and had granted 20,000 acres for its endowment. Superintendent Archibald's report of the Insane Hospital at Jamestown, dated 1893, enumerated 125 feeble-minded children of teachable age in that institution.

Two penitentiaries seemed almost superfluous in those days when private dispensation of justice often saved the state the expense of trial and imprisonment. Senator J. L. Cashel introduced a bill to amend the constitution, locating the school for the feeble-minded at Grafton. This amendment was finally passed in 1901, when a bill was also passed creating a Board of Trustees and authorizing the erection of a building.

On December 15, 1903, the main building, with a capacity for one hundred inmates, was finished at a cost of \$86,000, but equipment and furniture were not installed ready for opening until May 2, 1904. Dr. L. B. Baldwin, who had been Assistant Superintendent at Jamestown, assumed the duties of superintendent on December 15, 1903. By November 1, 1904, the attendance was 75, a large majority being of low grade. The training department was opened on September 1, 1904, with an enrollment of 26 pupils, and one teacher, Miss Alice B. Scott. During the summer of 1904 labor was hired to cultivate 25 acres of the institution's land. On March 5, 1905, an agreement was made to buy 120 acres of adjoining land for \$6000, a barn and root cellar were built, and farming was started. This additional land was badly needed for production of food for institutional use, since this school was the only state institution then in operation not provided with a land grant income.

On April 15, 1907, Dr. Baldwin resigned, and Dr. H. A. LaMoure, formerly first assistant physician at the Minnesota School for the Feeble-Minded at Faribault, was appointed Superintendent. During the three years he was in office the institution's growth was rapid. In 1907, the west wing of the main building was enlarged,

and a boiler house was built; in 1908, an electric light plant, a water tower, and a fire pump were installed; and in 1909 a hospital with 20 beds was erected at a cost of \$23,000.

On December 1, 1910, Dr. LaMoure resigned. He was succeeded by Dr. A. R. T. Wylie, formerly first assistant physician of the Minnesota School for the Feeble-Minded at Faribault. Dr. Wylie is the present head of the institution, and under his direction the school has developed rapidly and has won a firm place in the confidence and respect of the public.

In material equipment several improvements have been made. In the fall of 1912 the North Ward Building for boys was finished, and it was occupied in the spring of 1913. This building has room for one hundred inmates, and has manual training shops in the basement. The segregation of the sexes was made possible by the addition of this building. Sewing rooms for the girls were provided on the second floor of a new laundry building. The farm plant has also been improved. It consists of a modern seven room farm house, a dairy barn and silo, stable, hog house, chicken house, machine shed, etc. A resident farmer manages the farm and supervises the work of the boys. Twenty acres of the original farm land were sold to the City of Grafton, and additional land was rented. An interesting phase of the development of the institution is its increase in enrollment. From an initial attendance of 75 the attendance had increased to 276 on October 6, 1919. The figures have varied but slightly for the last seven years. The capacity of the institution became inadequate as early as 1910; since that date there has been a waiting list of applicants constantly on file—for the two years, June 30, 1916, to June 30, 1918, this list contained one hundred thirty-two names.

There has never been an accurate and scientific census of the feeble-minded population of the state. Each county is required to report cases of feeble-mindedness, but in 1916, only sixteen of the fifty-two counties reported, and 1917 only fourteen; moreover, only seven of these counties reported both years. In several of the other states reliable censuses of feeble-mindedness have been made; these reports indicate an increase of feeble-mindedness in the United States, and give a basis for estimating the number of cases in North Dakota. Based on these estimates, the number of feeble-minded in North Dakota in 1910 was 1,731; in that year the state institution had an average population of 165—less than ten per cent of the probable total. These figures give a significant indication of the necessity for the adoption of certain constructive policies urged by all



scientific authorities: segregation of sexes in every institution, and permanent institutional custody of all cases during the reproductive period, to eliminate those cases of hereditary origin. These policies could not be adopted in North Dakota for some years to come, nor could they be enforced at present in any state; and lack of funds for the erection and maintenance of institutions is, after all, only the lesser part of the problem. The first process in the solution of this problem must be a scientific survey of conditions in the state to secure absolutely dependable information; the next must be the education of the public to an understanding of the situation and appreciation of the menace of the present laissez-faire policy; the third must be the securing of the cooperation of every agency in carrying out the scientific policies named above. North Dakota has already on its statute books two laws which, if enforced, will be of great value in eliminating feeble-mindedness—a eugenic marriage law and a law permitting sterilization.

The School for the Feeble-Minded has recognized that one of its chief functions is public education, and has used every resource it possesses to spread scientific information and call public attention to the needs of its charges. In 1918 Dr. Wylie's report stated that North Dakota ranks twenty-third in the United States in its care of the feeble-minded. The financial handicap arising from lack of a land endowment has been serious. Several changes have been made in provisions to furnish funds. At first all expenses were paid by state funds, except clothing, fare, etc., which were supplied by parents or counties; then an annual charge of \$40 was made to parents or counties; this annual fee was raised at first to \$100 and since 1911 to \$180. All other expenses have to be paid by legislative appropriation. It is manifestly unjust that the largest class of defectives should be entirely without land endowment, when all the smaller classes are amply provided for.

In 1917 a law was passed that no pupil is to be admitted to the School for the Feeble-Minded except on commitment by the county court, and no one can be discharged except by approval of the Board of Control.

The children who have been fortunate enough to secure admittance to the school have received the benefits of the most modern methods of instruction devised for this class of pupils. The children are classified as to mental ability into the three grades based on mental age—idiots, from one to three years; imbeciles, from three to seven years; and morons, from seven to twelve years. The idiots are practically non-educable, and the better grade imbeciles only

slightly so. For these lower classes the institution serves only as a custodial agency, caring for their physical wants and making them as neat and comfortable as possible, a task difficult to perform in a private home. A second class who are here mainly for physical care and medical attention are the epileptics, who are not feeble-minded, as a rule, but who have in this state no other institution where they are received for care, unless it be the insane hospital, where they are even more out of place. The third department of the institution is the school and training department. In 1914, eighty-four of the children were of sufficient ability to be capable of training, and there were three teachers.

The school work begins with the sense training, songs, and rhythmical games used in kindergartens for normal children. The "Montessori Method" had been used successfully for years with feeble-minded children; it is essentially the system devised by Dr. Seguin, founder of the training course for the feeble-minded. Elementary reading, writing, and number work can be learned by the brighter children.

Physical training is of prime importance. These children have to be carefully taught cleanliness and neatness in personal habits. Unlike normal children, they even have to be taught to play. They enjoy all kinds of outdoor exercise, and take great pride in their gardens, which they plant and cultivate themselves. They show a remarkable appreciation of music, and are proficient in many games, including basketball and baseball.

Manual training is the work in which they show greatest aptitude. The girls do neat and beautiful work in basketry, sewing, fine needle work, torchon lace making, rug weaving, and housework. The boys are equally skillful in bench, brush and sloyd work, and hammock making, and are both industrious and able in working on the farm, and in the gardens, barns, boiler house, and laundry. Exhibits of their work are sent to the North Dakota Federation of Women's Clubs, the Industrial Exposition at Bismarck, and to the office of the Board of Control, and have done much to educate the public as to the value of the school.

Social recreation is afforded by the weekly dances, attendance at circuses, holiday programs, and moving pictures. The children have given operettas with remarkable success, and during the war they gave Red Cross entertainments. Regular religious services are held.

This brief account of its work shows that the School for the

Feeble-Minded has performed its work to the full extent afforded by its opportunities and resources, and that it forms a strong nucleus for future constructive activities to eliminate feeble-mindedness.

### THE STATE TRAINING SCHOOL

North Dakota's only educational institution for delinquents is the Training School. During the territorial days a Reform School had been established at Plankinton, South Dakota, and in November, 1888, the first child from North Dakota was sent there. In all, 101 children were cared for at Plankinton before North Dakota opened her own institution.

The Enabling Act gave a land grant of 40,000 acres to North Dakota for a Reform School, an endowment equal to that received by the School of Mines, and the Deaf and Dumb Asylum. The **state constitution** located the school at Mandan. The legislative assembly of 1890 passed a law locating the school at Mandan and providing for its government.

During the next ten years practically no progress was made in establishing the school. Every two years a new board of trustees was appointed; the first attempts to secure a site failed, altho one was finally contracted for in 1895; but no legislative appropriation was provided.

The Board of Trustees organized in April, 1901, issued bonds for \$20,000 in accordance with a legislative act of 1901. Considering the site purchased in 1895 unsuitable, the new board accepted a donation of forty acres west of the limits of Mandan. In December, 1902, a building costing about \$20,000 and having living accommodations for about 50 boys and attendants was erected. The Reform School was opened for the reception of children on May 13, 1903. Twenty-one boys and three girls were transferred from Plankinton, and by June 30, 1904, the population had increased to thirty-five boys and four girls. J. W. Brown, the first superintendent, continued in office until July, 1915. His successor was Mr. J. M. Devine.

Before the end of Mr. Brown's term of service the school plant had been greatly improved by the addition of new buildings and equipment. A girls' building was provided for by an appropriation of \$10,000 in 1919. This contained quarters for twenty-five girls and their attendants, and also for the superintendent and his family. It was built of concrete, and like all the other buildings except the first, was constructed by the boy inmates with the super-



vision of the regular employees. A Mechanic Arts building and power house was erected in 1907 at a cost of \$11,000. The basement of this building contains the blacksmith shop, steam laundry, engine room, boiler room, and coal shed. On the first floor are the working shops, and on the second floor are the assembly room, seating 250 to 300 persons, and also the tailor and paint shops. The third school building is a cottage for the younger boys, costing \$10,000 and containing room for twenty-five boys and their officers. The farm buildings include a concrete dairy barn, holding thirty head of cattle, and a one-hundred-ton silo, costing \$2,500; a frame horse stable, for six horses, built at a cost of \$2,100; an ice house worth \$300; and a root cellar with machinery shed above, costing \$800. As Superintendent J. M. Devine pointed out in 1916, the use of the labor of the inmates has greatly decreased building costs, but the buildings have been inferior in construction. In fourteen years the state had expended only \$44,000 for this institution.

The institution owned 480 acres in 1916, including 200 acres in the Heart River Valley adjoining the school grounds. This land is very productive and crop failure is very rare. Portions of it are well wooded and of such great beauty as to be a natural park.

The Training School has probably a more difficult educational problem than the other institutions. Its entrance requirement is a certificate of bad character. Its inmates come from bad homes, broken up homes, or no homes at all; they come from evil companionship and from habits of viciousness, idleness, and ignorance. Their very attendance at a "Reform School" casts a stigma upon them which may be life-long in its effects. After many years of agitation, the original title of "Reform School" was finally changed to its present title by constitutional amendment on November 2, 1920. Thus it is hoped that the abandonment of a term of such unfortunate connotation may help to lighten the stain of disgrace.

The educational program of the school has been to divide the time about equally between mental and manual training. About four hours daily for ten months are allowed for study. The course of study is that used in the common schools of the state. There is a library, and literary societies have been organized. Religious services are held regularly.

In summer the older boys are employed in the care of the farm crops, garden, grounds, and buildings, besides in the construction of new buildings. In winter they care for the stock, haul fuel, fill the ice-house, clear away underbrush, and cut wood. Since 1911 tailoring

and repair of clothing have been taught. The smaller boys help in the kitchen and general housework for the boys' quarters. The girls do sewing and the housework for their own building.

Physical development has been promoted by football, baseball, bathing, skating, and other athletic sports. A school physician had general supervision over health. Hospital care was available in Mandan until recently. Amusement and recreation are afforded thru these outdoor sports. In 1909 a brass band was organized, and in 1914 a girls' orchestra, whose playing on various public occasions received much commendation. The students are given free admission to the Mandan Fair and Chautauqua. Their exhibits at the fair have received several prizes.

Superintendent Brown defined his policy of discipline, naturally one of the big problems in an institutions of this kind, as being one of keeping the pupils interested and busy in work or healthful recreation. Occasionally it has been necessary to use deprivation of privileges or physical restriction as a punishment. In 1911 the legislature passed a Juvenile Court Law placing delinquent and dependent children under the jurisdiction of the District Court Judges. This law was criticized by Superintendent Brown because the power of discharge from an institution was given to the district judges without consent of the superintendent, and also because it did not provide adequate supervision of cases under parole.

The reports made by Superintendent Devine during his term of office point out needed improvements. The necessity of thoro physical examination and correction of physical defects is strongly urged; and this work has been begun and carried on so far as finances permit. In 1917 additions to the girls' building provided some room for hospital facilities. A gymnasium and playgrounds are imperatively needed. It is asserted that the manual labor performed by the inmates is not educative, for it does not give skill and efficiency in any occupation which may in later life be used for self support. The low salary paid makes it almost impossible to secure competent teachers. Since 1908, it has repeatedly been urged that the school farm be made a government experimental farm station, where the boys might be taught scientific farming under competent instructors.

Recently a plan of parole has been adopted whereby the larger boys are hired out to work on farms at \$50 per month, and the smaller boys at \$20 per month. Their wages are sent to the office, and spending money is allowed the boys; the surplus is to form a saving fund to start the boys out when they leave the school.

The attendance at the Training School on October 31, 1919, was sixty-six, of whom fourteen were girls. This does not represent the total number of delinquents in the state who would profit by training in a school of modern equipment and methods, but rather it represents the total present capacity of the school. Since the legislature of 1919 appropriated \$200,000 for buildings and improvements, the North Dakota Training School will undoubtedly be in the front rank among similar institutions within a few years.

In May, 1921, superintendent Devine was succeeded by Captain William F. McClelland. Superintendent McClelland has had extensive and successful experience with delinquent children in the George Junior Republic and in the State Reformatory of Georgia. He has already begun the establishment of a system of self-government. Within the last two months provisions have been made for teaching scientific agriculture for the boys and domestic science for the girls. The outlook for a rapid development of this institution is very promising.

In the State Training School the number of girl inmates has always been small, and the chief emphasis has been placed on the boys' problem. The state school has not attempted to make provision for unmarried mothers, and in any case, its jurisdiction is limited to minors. The only agency in the state which has been working to aid and educate the unmarried mother is the Florence Crittenton Home in Fargo, established in 1908. This is one of a number of institutions in various states known by the same name, all founded and supported chiefly by private philanthropy. However, the Fargo home has been made a quasi-public institution by the legislative act of 1917, which made an appropriation of \$6,000 to the Florence Crittenton Home, and required the institution in return to submit an annual statement to the State Auditor, and made it subject to inspection by the State Board of Control.

North Dakota has made no provision for the institutional care of dependent children. This work is being done by the Children's Home at Fargo, supported wholly by private charity. This institution is doing a wonderful service, and is working for an endowment for additional buildings, grounds, and maintenance. However, it is a grave question whether the state is not shirking responsibility in neglecting to provide for its dependent children either in public institutions or by public aid to private institutions. In 1918 the State Board of Control recommended the establishment of a State Children's Home, to be located preferably near one of the state normal schools. By the enactment of the Mothers' Pension Law,



North Dakota has adopted a constructive measure to prevent dependency among children.

#### THE OPEN AIR SCHOOL AT DUNSEITH

Educational work has been begun among the children at another state institution, the State Tuberculosis Sanitarium at Dunseith. Here an Open Aid School was started on January 1, 1916. However, this school is supported, not by state funds, but by the North Dakota State Anti-Tuberculosis Association, which raises the money by the sale of Red Cross Christmas seals.

#### THE SCHOOL FOR THE BLIND

The School for the Blind is the most recently established of the state's educational institutions for defectives. The "Blind Asylum" was provided for by the state constitution in the county of Pembina, "the place to be determined by the electors of the county", and a land grant of 30,000 acres was given. Bathgate was chosen by the voters as the site of the institution. It was formally established by act of the legislature in 1895, but was not ready for opening until February 18, 1908. B. P. Chapple, the first superintendent, is the present head of the institution.

The School for the Blind has had greater financial resources than any of the other institutions, both because of its liberal endowment, and because it has the smallest number to provide for. Its school plant at present consists of the main building, the power house, erected in 1909, with rooms for the girls' playroom and for shop work, the barn, the root-house, and the ice-house. The total cost of the buildings was \$86,800. The grounds, containing thirty-two acres, have been well improved, and there is a good garden. All expenditures of the school, except the initial appropriation for part of the land and for construction of the buildings, have been met from the income from the land endowment.

For the first year, 1908-09, the average enrollment of the school was 20; in 1917-18, it was 28; during the first ten years after its opening, its largest annual enrollment was 32; and its total enrollment during this period was sixty-five. On October 31, 1919, the enrollment was thirty-five. In 1918 the faculty included, besides the superintendent, four teachers and one student assistant.

The School for the Blind is an educational institution, not a charitable one. Those eligible to admission are all blind children of sound mind and reasonably good health, between the ages of

seven and twenty-one, who are residents of the state, and all children with sight too defective for attendance at public school. The school does not aim to provide homes for the aged blind, or to give vocational training to the adult blind. Blind babies can not be cared for here, but the state is authorized by law to support blind babies at the International Sunshine Home in New York. At present five babies are being cared for there at state expense.

The school is free—that is, all expenses are paid by the institution except fare, clothing, and incidentals, which must be met by the parents. The school is in session nine months, from September 15 to June 15.

The type of education afforded by the school is such that it enables many of the blind to become wholly or partially self-supporting, and all of them to become much happier and healthier because of their broader outlook upon life which comes thru self-development.

There are three main departments of study—academic subjects, music, and industrial work. The academic subjects are the same as taught in public schools, thru the grades and the high school. Special equipment used for this work includes books and music in raised print, relief maps, writing slates and styluses, and typewriters. Music is a subject to which much time and effort are given. Vocal music, piano, violin, cornet, clarinet, and some theory and history of music are taught. Many public recitals have been given, which showed the development of great ability. Piano and organ tuning and repairing are among the best occupations for the blind. In industrial work some very good results have been secured. The boys do bead work, hammock and flynet making, basketry, chair caning, and broom making. The girls do bead work, hand and machine sewing, fancy needle work, mat and rug making. Both boys and girls assist in the care of their own rooms.

Amusement and recreation are well provided for. Literary and musical programs are much enjoyed. To promote good health, a modern playground equipment has been installed, and systematic instruction in hygiene is given. Walks, picnics, and parties are favorite diversions.

An important function of the school has been to make its work widely known, so that every blind child may be reached and helped. At first reports of blindness were much neglected, but now few cases will be missed since Red Cross and county nurses are working among the children. Another activity of the institution has been the dissemination of scientific information about the cause and prevention

of blindness. The outlook in the education of the blind is a hopeful one, for with increasing knowledge there is no doubt that blindness will decrease, and the education of the blind is becoming steadily more efficient.

Altho the School for the Blind has been in existence only thirteen years, the good results of its training are already becoming evident. All students show improvement in intelligence, personal habits, care of health, and ability to help themselves. Several boys who have gone out are making a good living in piano tuning. Other boys have been successful in combining the teaching of music with dealing in musical instruments. Several girls have become successful teachers of music or primary academic work in schools for the blind. One young man took a special course in college, and two young women are now attending college, preparing for self-supporting careers.

This account of the State's institutions for delinquents and defectives shows many unsolved problems, and many unused opportunities for larger service, no doubt, but we believe it shows also a progressive spirit among the people of the state, a willingness to sacrifice for the weak and unfortunate, and a big task well and nobly begun.



# General Educational Administration in North Dakota

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1903-1911

Dakota Territory was organized April 2nd, 1861. Governor William Jayne arrived in Yankton in May following. Sixty years have passed since then and where once was an unbroken wilderness of prairie relieved occasionally by trees skirting the streams, now are found two sturdy commonwealths whose combined population approximates a million and a half people. What a wonderful transformation has taken place, not only here but everywhere in this great West!

A legislature convened in March, 1862, and on May 13th, 1862, "An Act for the Regulation and Support of the Common Schools" was approved by the Governor. This Act provided for a County Superintendent of Public Instruction to be appointed by the Board of County Commissioners. Such was the beginning of our educational supervision, at least over the local units.

The Indian uprising of this year resulted in the abandonment of Dakota Territory by settlers except those in Yankton, and this settlement was securely defended. Few of those settlers who fled before the Indians, ever returned.

The Legislature of 1864 enacted a law which was approved January 15th, for a Territorial Board of Education, consisting of the Governor, Secretary and Treasurer. This marks the beginning of the General Educational Administration of the Territory. This Board was authorized to appoint a Superintendent of Public Instruction who was also to act as Clerk of the Board. So we find in our original law the idea to which most educators now adhere, namely the appointment of the State Superintendent by a Board of Education, such appointment based solely upon educational fitness and attainments. At the following legislative session this law was amended but the main features persisted. In 1867 the law named James S. Foster who had held the position of Superintendent by appointment from 1864. The law provided for an elective superintendent with a term of two years, but no election occurring, the incumbent held over.

The Act of 1869 says that the Territorial Superintendent shall be elected, which plan was continued until 1877, when the law was changed, providing that the Superintendent should be appointed by the Governor and confirmed by the Legislative Council. The salary was fixed at the munificent sum of \$600.00. Women were given the right to vote at school elections in 1879 and in 1881 made eligible to hold the office of county superintendent.

During the period from 1879 to 1885 the Territory was indeed fortunate in having an educational statesman as its Superintendent, General W. H. H. Beadle. The debt which the two Dakotas owe him can never be paid. He saved for posterity the great patrimony in our school land endowment. He preached a veritable crusade against the folly of selling for a mere nominal sum these lands, and to him we owe the Constitutional provision of a \$10.00 per acre minimum. During his last term, the law was enacted providing for the school township system except in 18 of the older counties in the Territory where the district system seemed too firmly fixed. This included in North Dakota the counties of Cass, Barnes, Grand Forks, Walsh, and Pembina. His last report, the 15th annual, is worthy a high place in educational literature of this commonwealth. General Beadle's successor, Superintendent A. Sheridan Jones, secured the passage in 1879 of an Act again providing for a Board of Education consisting of three members to be appointed by the Governor,—a President who was also to be Superintendent, a Vice President, and a Secretary. Eugene A. Dye was President and George A. McFarland (for thirty years one of the real leaders in Education in North Dakota) was Secretary. Mr. Dye was succeeded in 1889 by Leonard A. Rose, who served as Superintendent until Statehood.

The Constitution of North Dakota in Section 147 and 148 says:

"A high degree of intelligence, patriotism, integrity and morality on the part of every voter in a government by the people being necessary in order to insure continuance of that government and the prosperity and happiness of the people, the legislative assembly shall make provision for the establishment and maintenance of a system of public schools which shall be open to all children of the State of North Dakota and free from sectarian control. The legislative requirement shall be irrevocable without the consent of the United States and the people of North Dakota.

The legislative assembly shall provide, at its first session after the adoption of this constitution, for a uniform system of free schools throughout the state; beginning with the primary and extending through all the grades up to and including the normal and collegiate course."

In Section 82, provision is made for the election in the manner prescribed for other State officers, of a Superintendent of Public Instruction. "His term shall be two years and his powers and duties shall be as prescribed by law."

The Legislative Assembly which convened following our admission as a State carried into effect the constitutional provisions regarding public education. The State Superintendent was to have general supervision over the public schools and be ex-officio a member of the Board of University and School Lands and of the Normal School Boards of the State. He was to prepare questions for teachers' examinations and prescribe the rules for conducting the same. The course of study for the public schools and State Normal Schools was to be prepared by him. Teachers' Institutes and Reading Circles were to be under his direction and supervision. In short, the State Superintendent was to be head of the public school system of the state. For each county there was to be a County Superintendent of Schools, chosen by the people for a term of two years and who must hold a certificate of the highest county grade or its equivalent. To him was given the general superintendence of the public schools of the county, except cities organized under special law. He was to conduct all teachers' examinations and read and mark the papers and issue certificates.

The organization of the common school district provided for the election in each district of a Board of three directors, who in turn elected a clerk who was not a member of the Board. The District Treasurer was elected and only acted as the financial officer of the district. This plan of organization has continued practically unchanged from the beginning of statehood. Both special and independent districts were provided for. These were for the towns and the cities.

The state educational institutions organized in the beginning were the University, Agricultural College and two Normal Schools. Each had a separate Board of Trustees, that acted independently of one another except that for the formal ratification of faculty appointment the Boards of Normal School Trustees came together once a year under the presidency of the State Superintendent. Such was the basis of the General Administration of Public Education in North Dakota.

The first six or eight years of statehood was a struggle largely for existence on the part of all educational institutions. The population of the State at this time of its entrance into the union was considerably less than 200,000 people; much less than one third of the area



was settled and considerable of this was being homesteaded and was not on the tax roll. Practically no school land had been sold and so it is not at all strange that we found ourselves facing the actual closing of our state educational institutions following the panic of 1893-94, but be it said to their everlasting credit, the people of this State and the men and women in our State University and Normal Schools came staunchly to the support of these institutions, and by voluntary contributions the doors were kept open.

We do not now recall any change in the laws governing education until 1895 when the legislature enacted a law creating what was known as the State High School Board. The purpose of this law was to give standing to secondary education, provide for the classification of high schools, the regulation of courses of study and the examination of high school students by the State Board, and the issuance of State High School Board Certificates which were to be accepted in lieu of examination for entrance to state educational institutions. This law had its inception in a Conference called in 1891 by our friend, the late Dr. Webster Merrifield, then president of the State University. A voluntary plan was adopted providing for examination of high school students. This worked successfully and a bill providing for the State High School Board and special aid was enacted in 1893 by the legislature, only to be vetoed by Governor Shortridge. In 1895 the bill was again introduced. It carried an appropriation. The committee, which consisted of President Merrifield, Superintendent W. E. Hoover, and the writer, found that the appropriation meant its defeat, and so that feature was dropt and the bill passed. The Board consisted of the Governor, State Superintendent of Public Instruction, and the President of the University who also acted as Examiner. We have not the time or space to discuss the far reach of this measure. It marked the beginning of real educational progress. It strengthened elementary education and stimulated higher education. The legislature of 1899 provided an appropriation of \$4000.00 for special aid to State High Schools. While the amount for each school was small it was the forerunner of additional aid, given each biennium commencing with 1903, for more than 10 years.

Two measures enacted in 1901 were of special importance. One provided for an annual meeting of school district officers in each county. It is needless to say that these school officers hold the keys to the situation, especially as it relates to rural education. Their education in what constitutes a good school was essential to educational progress and each year since the enactment of this law,

has seen a steady improvement in the attitude of the great body of school officers. They have come to realize that nothing is so essential to rural life as the rural school. Better school buildings, better equipment, better trained and better paid teachers. Longer school terms and consolidation of rural schools largely date from this time. The other measure which dates from 1901 was the reading of the papers from all teachers' examinations by the Department of Public Instruction. This provided for greater uniformity in the grading of papers and the fixing of practically a single standard for teachers' certificates. This plan has continued now for twenty years with very little real change except that where in the beginning the certificate was issued by the County Superintendent based upon the markings furnished by the State Department, now the certificate is issued by the Department and is a State Certificate.

In 1905 a provision was enacted eliminating the third grade county certificate after January 1st, 1908, and establishing a minimum wage of \$45.00 per month for second grade teachers. This seems trivial indeed in the light of recently enacted laws establishing a minimum wage of \$720.00 for the year, and a minimum of four years high school training for teaching after 1923, yet if one knew what a tremendous innovation the act of 1905 was, he would know why the Department of Public Instruction of that day was accused of all the political crimes in the category. The law of 1905 also recognized the place of importance in the general administration held by the County Superintendent. His salary was increased, provision for a real Deputy made, and the qualification of County Superintendents materially raised.

The biennium between 1905 and 1907 saw the appointment as a member of the official family of the Department of Public Instruction, of a High School Inspector. The work of this officer has meant much to the efficiency of our high school system. We think it may be safely said that no state has a more efficient system of secondary schools than North Dakota. This officer was later recognized by law and his duties defined.

The year 1911 saw the enactment of a complete revision of the school code with some new administrative features. The first was a State Board of Examiners of five members to which Board was transferred the work of examination and certification of teachers. The President of this Board was the State Superintendent, and its work was largely administered thru the Department of Public Instruction. Another change was in the State High School Board. Its personnel was changed by leaving off the Governor and including

the President of the Agricultural College and two persons appointed by the Governor, one an educator, the other a citizen not engaged in educational work. Still another important enactment of 1911 was the provision of a single board with the State Superintendent as President to which was given the administration of all the State Normal Schools. This was a forerunner of the single board idea for all State Educational Institutions. The trend of sentiment among citizens as well as school people was steadily toward centralization of authority and administration.

While it may not be strictly in point in this paper, we can not forego mentioning the enactment in 1911 of the law providing for the standardization of rural schools, the granting of special aid and the provision of a rural school Inspector. This measure was the result of a crusade which had been insistently preached during the preceding eight or ten years.

The consolidation of Boards went on in 1913. This time the Board of Examiners and the State High School Board were consolidated, and we have the State Board of Education with the State Superintendent of Public Instruction as President, with four representatives of state educational institutions, both the high school and rural school inspectors, a county superintendent, and a citizen. Some features in the make-up of this board were thoroly inconsistent but it represented a compromise between conflicting and possibly selfish interests.

The agitation for economy and against duplication in our state educational institutions resulted in the creation in 1915 of the State Board of Regents of five members, to be appointed by the Governor, with control over the University, Agricultural College, Normal Schools, Normal and Industrial School, School of Science and School of Forestry. This measure also provided for a State Commissioner of Education, a perfectly anomalous provision so long as there was a State Superintendent of Public Instruction. We are sure that if a little common sense had been used by this legislative assembly and those backing the legislation, much of the confusion and lack of efficiency which has marked the past six years would have been eliminated. No effort seemed to be used to eliminate the element of partisan politics and as a result the past six years has seen very little but a series of unfortunate squabbles in all of our state educational institutions. The blame for this condition does not rest with any particular faction, but the results have nevertheless been most unhappy and ought to cause every thoughtful person interested in education to demand the enactment of legislation which will place our edu-



cational system beyond the mischief-making plans of political partisans. The final enactment of consolidation was brought about by the legislature of 1919, when there was created the so-called Board of Administration, a board of five, three paid members and two ex-officio members added to meet the exigencies of a political situation. The three paid members, however, apparently were intended to be the Board and as we see it, have been the Board. The Board of Administration was to have control of all charitable, penal, and educational institutions, state high schools, graded, rural and consolidated schools, and the examination and certification of teachers; in fact practically all the functions of the State Department of Public Instruction were transferred to this Board. In our humble judgment a more grievous offence against sound educational policy never was committed, and as a result of this the years 1919 and 1920 were marked by a destruction of much of the work of the previous 25 years. The enactment of a law at the general election of 1920 restored to the Department of Public Instruction all those powers relating to the administration of elementary and secondary education and there is where we stand today.

What is needed now in North Dakota is an adjournment, without day, of all politics in connection with education, and the enactment of a law which will give us a State Board of Education appointed by the Governor and confirmed by the Senate. This Board should consist of not more than five members, without salary, and selected without reference to political affiliation, not more than three from any one political party, and including at least one woman, and to this Board should be given the power to appoint a Commissioner of Education to be the executive head of the State system of Public Education. Such a Commissioner should be chosen solely for his educational qualifications and fitness, without reference to residence, and paid a salary, not less than \$6000.00 a year and removable only for inefficiency or palpable failure to perform the duties of his office. This Board should have general supervision and control over all State Educational Institutions, leaving to the Presidents of said institutions the administration of the same. The combination of charitable and penal institutions with educational will not work, has not worked, and can not work.

Then, we need a county board of education charged with the appointment of a county superintendent and the general supervision of all rural schools in the county. So far as our judgment goes, some such plan as the above alone can bring us out of our present more or less chaotic condition. Surely we can not go on as we are,

Thirty-two years of Statehood have seen tremendous material progress, much advance in education, but our educational progress has not kept pace with the advance in material things. The past few years has seen a real crisis in education, not only here but elsewhere. If our Democratic form of Government is to endure, then some way must be found to bring educational opportunity within the reach of every child, and that education must be free from any taint of sectarian or political control. And public opinion must be educated to the point where there will be adequate financial support for the highest efficiency in public education.

# Secondary Education\*

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In tracing the development of secondary education in North Dakota it will be necessary to make some reference to the beginnings in Territorial days.

By 1880 the population of Dakota was 135,177. There had been an increase of 850 per cent during the decade preceding. Division sentiment was pronounced in the north as well as the south. It had been a decade of unprecedented activity and expansion.

It was five years previous to the date mentioned that the first high school was organized under the general law. This was at Yankton, the first Territorial capitol and one of the oldest settlements in the Territory. But in the years immediately following the organization of Yankton High School, a great many followed.

The first public school law of the Territory<sup>1</sup> is of importance because it established the "graded school", by which was meant in effect the elementary school surmounted by such part of the high school course as was possible. That part of the law reads as follows: "Whenever the inhabitants of two or more school districts may wish to unite for the purpose of establishing a grade school in which instruction shall be given in the higher branches of education, the clerks of the several school districts shall .... call an election ...., and if a majority of each of the two or more districts shall vote to unite for the purpose herein stated, they shall at that meeting, or at an adjourned meeting, elect a board of directors."

We see then that the graded school began in the union district, or on the union district plan—truly a forerunner of the consolidated school.

The second independent school district to be organized was Bismarck in 1881. The details were identical with those at Yankton. Fargo, Grand Forks, Sioux Falls, and Deadwood had all been organized before 1885, but until 1888 none of the Dakota high schools reported to the United States Bureau of Education except

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\*Editor's Note. This article is a brief summary of an extended study of the history of secondary education in North Dakota made by Mr. Bjornson while a graduate student in the University of North Dakota in 1916-1918. The results of the study were presented in his Master's degree thesis, now bound and to be found in the University library.

1. Session Laws Dakota Territory, 1862, Chapter 81, Section 59.



Yankton. That year<sup>2</sup> all five made reports. The combined enrollment was 260 which was 6.1% of the total number of children enrolled. In 1891, Fargo, Grand Forks, and Bismarck had 8 teachers and 139 students. Twenty-one students graduated from these high schools that year.<sup>3</sup>

The fact that the cities mentioned were organized when they were, is not to be understood as meaning that their high school work began just then or afterwards. In the case of Fargo, the high school seems to have been differentiated as early as 1878 with Mr. W. P. Burdick as the first principal. The first superintendent of schools, however, was not elected until after the formal organization of the districts. The choice fell on Mr. John N. Cowan, subsequently well known in North Dakota history. Mr. Charles F. Amidon, still better known to North Dakotans, was elected high school principal at that time. The first graduating class, that of 1886, was composed of five members.

The first superintendent of the Grand Forks city schools was Mr. C. N. Cunningham. He was succeeded in 1881 by Mr. Chas. H. Clemmer, who since 1881 had been superintendent of the Jamestown schools. The old central building was made ready for occupancy in 1882, and the first class graduated under Principal L. S. Kaufmann in 1887.

It seems that Bismarck high school had a slow growth.<sup>4</sup> As late as 1895, it had not adopted the full four years' course of study. That year, under the superintendency of William Moore an aggressive policy was inaugurated, and the work has gone on creditably since then. In 1895 the enrollment in the high school was only five. In 1898 the first class, consisting of five members, graduated. Grafton, Pembina, and several other smaller high schools of the state progress better and earlier than Bismarck.

Grafton was organized as an independent district in 1882, two years prior to the organization of the city. The territorial form of organization remained until 1897, when the present special district was formed.<sup>5</sup>

The biennium of 1893-4 marks new development in the high school history of the state. That year twelve high schools reported to the Bureau of Education: Fargo, Grand Forks, Bismarck, Drayton, Jamestown, Larimore, Lisbon, Mandan, Pembina, St. Thomas,

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2. Report of Commissioner of Education, 1888-9, p. 775 & 783.

3. Ibid. 1890-1, p. 792.

4. McFarland, Merrifield and Smith: Education in North Dakota.

5. Report of Superintendent of Public Instruction, North Dakota, 1892; p. 675.

Valley City, and Wahpeton. Doubtless this may be attributed largely to the Fargo Conference called at the suggestion of Dr. Webster Merrifield. The Conference did not begin to bear fruit until the following year. Following the endorsement of the plan of the Conference by the Teachers Association in 1893, two other things were done. First, a bill embodying the essential features of the Minnesota plan was passed by the Legislative Assembly early in the year 1893. The subsidy provision of the bill, however, was vetoed, and not until 1899 was a subsidy possible. Second, on the strength of replies to a circular which he had sent, Dr. Merrifield called a meeting of high school principals and superintendents in October, 1893. The meeting was in conjunction with that of the State Education Association and a permanent high school council was formed and the custom established of meeting twice a year; in the fall with the Education Association and in the spring at the State University.

The services rendered the high schools by Dr. Merrifield cannot be overestimated. During the formative period he showed great statesmanship and foresight in their direction, and later he discharged most of the work connected with their accreditation and inspection.

The report of the Bureau of Education for 1894-5 shows reports from nine more schools: Bathgate, Casselton, Crystal, Ellendale, LaMoure, Minot, Oakes, and Park River. In 1899 there was a total of 25 schools and the attendance had just reached the thousand mark. Since then the growth has been steady and gradual.

The law providing for appropriation affirmed the tentative classification into high schools of the first, second, and third class. In 1895 the high school board was created. In 1897 it laid down the rules for classification and drew up a course of study. The latter has been revised from time to time, but the former remains practically intact. The board consisted originally of the governor, president of the University, and the superintendent of public instruction. Later two more members were added, and finally the board was merged into the State Board of Education.

In 1907 the very important step of creating a high school inspector was taken. Prior to the publication of his first report in 1908 there were 46 schools classified. During that year 30 new schools were added.

Beginning with the year 1912-13 there were included in the list of classified schools five agricultural high schools: Velva, Grafton, Beach, Carrington, and LaMoure, and the following year two

county agricultural high schools: Maddock and Park River. Neither of these classes of schools has increased.

During the last ten or twelve years the main change in the course of study has been the introduction of the vocational subjects. The falling off in some, and gain in other of the academic subjects has been quite similar to that of neighboring states. Sewing and agriculture were not introduced until 1907; cooking the following year. Physical education, tho required by law (1909), has not yet been generally introduced. The commercial subjects were fairly well established before inspection began, and before the other vocational subjects were introduced. Since 1908 no school has had Greek on its program of studies; but there have appeared since that year public speaking, horticulture, Norse, and Spanish. Pedagogy and senior reviews had been taught before 1907, but not until normal training departments had been organized did the course become popular. During the war period German fell off rapidly, its place being largely taken by French; Spanish and Latin showed some gains as a result. In 1907-8 the number of unit courses offered by North Dakota high schools ranged from  $13\frac{1}{2}$  to 33 with a median of  $16\frac{1}{2}$ . For 1916-17 the range was from  $15\frac{1}{2}$  to 54, median 21.75. These figures do not take into account physical education, music, or Bible study, for which credit has been arranged.

North Dakota high schools first received accreditation at the hands of the North Central Association of Colleges and Secondary Schools in 1908. That year Fargo, Grand Forks, Devils Lake, Jamestown, and Grafton were accredited. Since then a large number, tho not all, of the first class schools have been accredited. No private schools have been put on the list as yet.

The junior high school is a very new movement in North Dakota. Superintendent Frederick L. Whitney was a pioneer, organizing his system at Grafton on the six-two-four plan in 1912-13. The high school manual for 1913 contained an excellent outline for junior high schools.<sup>6</sup> Lately a number of junior high schools have been listed by the state inspector tho it is doubtful that we have more than two or three fully meeting North Central standards.

Of the many and varied activities of high schools in North Dakota within the past few years, it is impossible to speak in this brief article. The night school experiment in cooperation with the Naturalization Bureau deserves honorable mention, as do the war activities and organizations. The attempts at extension work particularly in the agricultural high schools have been at least partly successful, med-

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6. *Op. Cit.* pp. 21-3.



ical inspection, social-center work, high school newspapers, and parent-teachers' associations have occupied attention, and some achievements have been made.

The system of state examinations which had been in vogue for several years was modified in 1913. They are now optional for classified high schools, except in cases where the examiner decides to cite a school for state examinations.

Private secondary education in North Dakota is confined to (1) Roman Catholic parochial schools, (2) academies or preparatory schools of other denominations, and (3) preparatory departments in denominational colleges. Their history is one of struggle for existence, and their work sporadic. One school, Brorson High School at Kenmare, is owned by the Danish Church and modeled after the justly famous folk high schools of Denmark. Fargo College and Jamestown College have preparatory departments in connection.

There is yet another type of the private secondary school, the business "college." Probably 2000 students attend these institutions each year, only about five per cent have had a high school education before. Judged by their work these schools compare fairly well, but they fail to direct student life, hence much of their product results in failure.

The normal schools and special state schools (School of Forestry and State Science School) are secondary schools as are also the high school departments at the Agricultural College and the University. It is not my purpose to discuss these schools here. Neither is it the purpose of this article to look into the future. But viewing the past, and particularly, then, the decade just past, there is every reason to be proud and optimistic. Secondary education has kept pace in North Dakota and has contributed to give North Dakota a prominent place among her sister states in education. The state has been fortunate in its leaders in education; there has developed a genuine demand for the best, for more progress and growth in the years to come.

## Book Reviews

**THE REDIRECTION OF HIGH SCHOOL INSTRUCTION:** HERBERT G. LULL, Director of Teacher Training, Kansas State Normal School, Emporia, Kansas, and H. B. Wilson, Superintendent of Schools, Berkeley, California. J. B. Lippincott Company, Philadelphia, London, and Chicago, 1921. 186 pp.

The book is well named, the name at once disarming suspicion. It is not to be an attack on the present high school, a destructive criticism, one reflects on taking it up, but a suggestive discussion based on existing conditions. And the reader finds it such. It is positive, not negative, in its point of view from beginning to end. It accepts the high school as a useful and powerful agency of the community for the development of young life and adds the thought that due to social and economic modifications its management, its energy, its activities should be correspondingly modified—"redirected". While the authors do not say so in so many words, the fundamental thesis of the book is to the effect that the high school should be managed and its work administered—subjects of instruction selected, methods of instruction used, social life of students directed—all on the basis of the characteristics, the tastes, the interests, the needs of adolescent youth. The old knowledge conception of education and the corresponding assumption that the chief function of the school is to see that that knowledge is obtained is all wrong.

The great, all-inclusive purpose of the high school, according to these gentlemen, is not teaching—it is directing the developing life of youth. The teaching of various subjects is merely an agency and, too, only one of the agencies used to accomplish this result.

Perhaps I should stop here that this big new point of view might have full right of way. Because it is a new thought, at least the first carefully worked out expression of this thought that has come to my attention. To be sure, some of us have been saying all this in classroom discussion, in addresses before educational gatherings, and even in occasional articles for the educational press. But not before this has a book been devoted to the development of the idea. Perhaps, I say, I should stop here, but yet let us go on and see how this new end is to be reached.

The writers of the book are firm believers in the junior high school, and not merely because, as is so often the case, it is popular, nor thinking that merit is found in the name alone. The junior high school, embracing grades seven, eight, and nine, is quite a different institution from the elementary school below or the senior

high school above. It is different because the boys and girls are different—in a different stage of development—and because of this it has different aims, uses somewhat different agencies, and should employ different methods of approach and handling. To show that different points of view are held in the two institutions it is but necessary to say that one chapter, III, is headed "Instruction in the Prescribed Subjects of the Junior High School" and that another, V, is called "The Senior High School" in which approximately the same ground is covered, but differently, for the older group.

One of the finest things in the book and, logically, one of the first thoughts develop is the discussion of required subjects of the curriculum. Yes, there are to be, in this redirected high school, certain subjects absolutely required. But they are to be required not because they ought to be taught but because they are needed in the work of transforming boys and girls into men and women. This discussion is given in chapter II, "The Social Core of the High School Curriculum". A contrast is given between the "traditional" and the "social theory of constants". And, consistent with a statement of the preface, "The view that the school is an instrument of social interpretation, social adjustment, and social control, is maintained thruout," the authors adhere to the latter term of the contrast. The following statement makes their point of view clear; "The constants of the high school curriculum should contain only those lines of common knowledge and training which individuals of a democracy must have to live together as free and responsible citizens. Stated concretely there should be no subjects prescribed for all students of the high school which do not deal directly with problems of health and physical efficiency, citizenship, and the means of communication thru the vernacular".

They also add, a little later, "Fortunately there is no longer any need of making high-school constants and university admission requirements synonymous. This is a very sensible way to state the fact that has at last worked itself up into the consciousness of thinking people that the purpose of the high school is to satisfy the needs of many boys and girls who do not plan to go on into college rather than those of the few who do.

Another very excellent feature of the book is a chapter on "Project-Problem Instruction". It is the very best discussion of the idea that I have seen. From what has already been said as to the writers' points of view on high school work one can easily see the peculiar appropriateness of the use of the project method, and therefore of its careful discussion. The writers are fortunate in having



at hand many examples of project-problem instruction that have been worked out under their own personal direction. Several are given in detail and will serve to clarify thought upon this, to many, rather new and abstract matter. They will also serve as quite specific suggestions for use. No thoughtful person, it seems to me, can read this chapter and fail to appreciate the great value of the project as an agency in the teaching of high school students.

The authors show in every chapter of the book the possession of an intimate knowledge and appreciation of adolescence. Indeed, this knowledge guides them from first to last. And yet they seldom mention the subject. The reviewer thinks that they have erred in this silence. Unfortunately we can not yet assume a knowledge of adolescence on the part of high-school teachers. To be sure, they have all heard the word. In a certain way it is in their vocabulary. But they are few who have more than a superficial knowledge of the field. They know but little of its scientific bases. If the writers of this book had included a brief but clear discussion of the physiological, the biological, and the psychological aspects of adolescence—had thus *accounted for* high-school boys and girls as we have them—as a background for what they have given us, the effect, it seems to me, would have been much greater.

In spite of the fact that the writers are blazing a new pathway thru the woods, they see the goal clearly and unhesitatingly lead in its direction. The book is well written and carries conviction. The publishers, too, have done their share—issued it in a well-bound attractive dress, using a large, clear type on a good quality of paper. It should have a very wide reading. Every thoughtful high-school teacher who wishes to be up to date should own the book and give it the most careful study.

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THE SAND DOCTOR: ARNOLD MULDER. Houghton Mifflin Company, Boston and New York, 1921. 317 pages.

The author of "The Outbound Road" and "Bram of the Four Corners" has given us another tale of the east shore of Lake Michigan with which we are now familiar thru his earlier volumes. However, he has departed from his previous vein in that his community and characters are not chosen from the sturdy Holland settlements of West Michigan.

The scene is laid in Finley, a little east shore town which may suggest any one of a half-dozen localities if one is familiar with the district. Its people are typical in that they present the virtues and shortcomings of a small-town provincialism. The central figure, Dr. Quentin, is a young physician, a native of Finley, who has returned to set up his practise. His specialty is nervous diseases and he is so thoroly imbued with the spirit of pure science that he disdains the petty jealousies and competitions which at times make a charlatan of the medical man. Not winning any financial success, he is generally esteemed a failure, to the distress of his charming wife, Hallie, who appreciates money and its social advantages. Quentin's brother-in-law, John P. Nash, represents a type common to such places as Finley. The making of money is his supreme aim, he has no scruples and eventually he comes to ruin and suicide. Dr. Quentin at last achieves distinction thru an operation by which he restores to normal condition young Larramore, the son of a rich mine owner. Larramore has been injured in an accident which affects his brain and causes him to act as a dual personality. Mrs. Quentin has an innocent interest in the young man and, for a time, we verge upon a triangle situation which is, however, wholly unobjectionable altho misunderstandings cause it to become almost tragic. Husband and wife genuinely love each other and finally come to a full appreciation. Quentin's merit is recognized by all.

But the dominant element in the story is the titanic force of nature as represented by the sand dunes. Silent, deliberate, implacable, and terrifying, the power of the shifting sands pervades the entire story. Just as the famous cathedral in Hugo's *Notre Dame de Paris* stands as a representation of the medieval spirit, so the sand forms an impersonal background which is none the less real. The dunes are a source of strength to Dr. Quentin when he is deprest by contemplation of human frailty, they are a bond of sympathy between himself and his wife, they sweep into oblivion the unscrupulous schemes of John P. Nash, they bury town and forest, they nearly annihilate Quentin and, at last, they are the means of reconciliation between himself and Hallie. They contribute an epic quality which is unique.

The Sand Doctor is worth reading by anyone who appreciates literary art. The characters do not seem as intense as those in Mulder's other novels but the general technic is finer. It is incomparably superior in its description of nature. Last, and especially, it attracts by reason of its triumphant idealism which is none

too common in this day when the cruder sort of pragmatism seems so distinctly in the saddle.

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PRINCIPLES OF TEACHING IN SECONDARY EDUCATION: HERBERT H. FOSTER, Professor of Education in the University of Vermont. Charles Scribner's Sons. New York, Chicago, and Boston. XVIII+367 pages.

Another book on the high school! There are many these days. And that is a favorable sign. Some accept the institution as it is and merely plan for a more satisfactory administration; others, not satisfied with the present program or generally accepted point of view, seek to revolutionize matters; and still others, less well satisfied than the first group mentioned and less courageous than the second, try to take a middle ground.

The book under discussion belongs to the first group. It might well be called "General Methods in Secondary Education". And from that point of view it is a most excellent work. If I were to give such a course to prospective high school teachers, there is no book that I should prefer as a text. And if I were asked to recommend to high school teachers in service a single book calculated to improve the teaching now being done in high schools or the general management of high school work as now carried on, this one would be named.

The chief weakness of high school teaching in these days is not found on the academic side. College graduation with some emphasis placed on specific subjects to be taught is almost a universal prerequisite,—in many cases absolutely required by state law. Speaking comparatively and relatively, high school teachers know their subjects fairly well, at any rate they know their subjects better than they know how to use their subjects as a means for the development of youth. The weakness is found on the professional side of the teacher's work. And such a book as this is a splendid contribution to a program of betterment.

A brief quotation from the preface will give the author's central point of view and of emphasis: "The book is a protest against formalism and mechanism, on the one hand, and unsystematic procedure on the other. The point of view is functional, in that in each step there is a procedure from discovery of aim to adaption of pro-



cess to aim. The author is also governed by the conviction that a well-planned lesson is more than a mere series of topics for study, but as a whole possesses an organic unit."

In the introduction is found a sane discussion of method and the place of method in the teacher's program. Fourteen chapters follow discussing the matter from as many specific aspects, including that of the learning process, the class exercise, the question, the lesson development, study, lesson organization, etc. The least satisfactory discussion, to the reviewer, is the one on "The Problematic Mode." The presentation of the "project", or "project-problem", thought is a little disappointing. The reason for this, however, is probably clear. The book as a whole presupposes the ordinary method of procedure with texts and regular recitation periods. Making large use of the project idea would somewhat disturb this regularity and make inoperative some of the suggestions most excellent for the older mode of attack.

But, in the main, the discussion is thoroly sane and up-to-date. A long chapter is given on one of the newer phases of school activity, that is tests and measurements. The author has an intelligent acquaintance with the literature of the subject, and his treatment is helpful.

Some additional features are worthy of note: In the table of contents is found a careful analysis of each chapter with a clear, brief statement of the central thought of each division. At the conclusion of each chapter is found a brief summary of the discussion in an effort to aid the student to catch the central thought,—to see the "woods", as it were, instead of the "trees". There is also found at the close of each chapter a list of suggested questions for discussion and of references for supplementary reading.

It is a good book, well thought out and well arranged. I wish it could, in some way, fall into the hands of all our high-school teachers, those of some experience as well as those of none. Perhaps the best time for its study, certainly a very good time, would be while one is teaching, while the problems are being daily met. Conditions for intelligent appreciation would be at hand and profit would follow. The publishers have been equally successful with the author. They have put out a book more than satisfactory from a mechanical point of view—good paper, clear type, and well bound.

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DISCIPLINE AND THE DERELICT: THOMAS ARCLE CLARK, Dean of Men, University of Illinois. The Macmillan Company, New York, 1921. 203 pp.

Here is a book in which most college instructors will be keenly interested and one which every college instructor ought to read. By reason of his position and long experience in one of our largest universities, Dean Clark has had abundant opportunity to observe college life and to think thru college problems. He is well acquainted with all possible varieties of the genus *college man*. Of the athlete, the politician, the loafer, the borrower, the "cribber", and the "fusser", he has intimate knowledge and he writes a discriminating and suggestive chapter in regard to each class. His attitude is sympathetic but not sentimental. He does not believe in wholesome condemnation of delinquents, but he does believe in honest work and in high ethical ideals, and he insists on firmness in handling those who fall short in those particulars.

His general attitude in regard to discipline is that prevention is far better than punishment. By prevention he does not mean the passing of rules. This he regards as largely a vain proceeding, tho one to which college faculties are prone to resort. He rather means the possessing by disciplinary officers of such intimate knowledge of student affairs that outbreaks may be foreseen and forestalled. He says: "The best way to manage the student guilty of misconduct is to look after him so personally and so carefully that he may be brought to account just before he has been guilty of the act which would subject him to discipline. The most skillful disciplinary work which I have ever done has been connected with the things that never happened because they were not allowed to do so." With this idea in mind he declares that discipline should not be entirely in the hands of the college president who generally has many other things to do, but rather in the hands of a committee of three or five made up preferably of the more sane and broadminded men among the younger members of the faculty. Of the success of student councils and student courts he is not very sure. He says that while they frequently seem to work well he is not convinced that they offer the best solution to the problems of college discipline.

Of all student problems none has given him so much concern as that of "cribbing". He feels that no doubt the majority of college students cheat at one time or another during their college course. The reason is that such cheating is not tabooed by the students' code. The "cribber" is not frowned upon; he is frequently regarded as a very shrewd and clever fellow. The author believes that in many

cases of cheating the blame lies with the instructor quite as much as with the individual student, but, after all, the main difficulty is the general student sentiment. "Cribbing and the cribber will go when the cribber, losing social standing, is not looked upon with favor, is not regarded as a gentleman. So long as undergraduate sentiment toward this sort of dishonesty is indifferent or tends to condone it the practises will continue. General student sentiment against the man who practises dishonesty in his college work will cause him to disappear over night."

In regard to working one's way thru college, Dean Clark writes very interestingly and sanely. He has great respect for the indigent student who puts in several hours a day in order to support himself; but he says that frequently by so doing a man is obliged to lose some of the best privileges of college life, that he fails to get the most out of his studies and that often by reason of his difficult struggle and his necessary isolation he develops a sour and embittered attitude towards society which goes with him thru life. The writer's opinion is that in a majority of cases the ordinary high school graduate without money had better put in two or three years of work before entering college, thus accumulating enough to assure himself of at least a good start and an opportunity to find his bearings. On the whole, however, the author is more hopeful of the hard-worked student than of the soft, spoiled only child of wealthy parents who has always evaded everything that is unpleasant or difficult. If his college life fosters the same tendencies he is indeed hopeless. If, however, college can wake him up and hold him down to some genuine work, it is likely to prove his salvation.

The most hopeless figure in the college world, according to Dean Clark, is the persistent loafer, the man who might easily do his work well but who shirks it in every possible way. He says that most of the men who have failed or gone to the bad in college have done so because they had learned to loaf. "The loafer is a far greater foe to scholarship than is the man of what we ordinarily speak of as distinctly bad habits. Even if he does his work, and very frequently he is lucky or clever enough to pass, he has no desire to do well. 'A pass is as good as 100 to me', I hear him say repeatedly, and he preaches the foolish doctrine so assiduously that many innocent and inexperienced freshmen believe him." "There is no success, there is no ultimate salvation for any excepting thru hard, persistent, regular work, and for that reason it seems to me there is no place in college for the loafer." "The quicker a college



gets rid of its loafers the better it will be for the loafer and for the college."

Thus one by one Dean Clark takes up the problems of college discipline, at least so far as they concern the young man. Of the problems peculiar to the other sex he says little. Thruout the book one is imprest with the author's wisdom and fairness. It is evident that he is writing out of a ripe experience and a full heart. Vigorous without harshness, kind without coddling, for a quarter of a century now he has treated his students with a justice that has commanded their respect and a sympathy that has won their regard. Into his book he has put himself with all his rich experience and has thus made a real contribution to educational literature. As was said at the beginning, it is a book which every college instructor ought to read and one in which few college instructors can fail to be intensely interested.

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University of North Dakota

# University Notes

**Commencement of 1921** The 1921 Commencement was in most respects about the same as in former years, differing only, in the main, in speakers and in members of the graduating classes. Dr. Melvin E. Haggerty, Dean of the College of Education of the University of Minnesota, gave the Commencement address on "The Spirit of the Pioneer". The weather was good, the attendance large, the spirit of the occasion all that could be desired, and more than a hundred have again been added to our list of alumni. The list is already large for an institution no older than the University of North Dakota and one in which the institution takes pride as it watches with interest the work being done by the various members scattered as they are in different parts of the world. The class of 1921 is made up as given below:

## Graduate Department:

Master of Arts.....	2	
Master of Science.....	1	3

## College of Arts:

Bachelor of Arts.....	42	
Bachelor of Arts (Course in Commerce).....	11	
Bachelor of Science.....	4	57

## School of Education:

Bachelor of Arts and Diploma in Teaching.....	28	
Bechelor of Arts in Education.....	3	
Teacher's Certificate (Two years of college work)..	76	107

College of Engineering.....	10	
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School of Law.....	3	
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School of Medicine (Baccalaureate Degree and Certificate in Medicine—Two years in Medicine).....	15	
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University High School.....	44	
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239

Deduct Certificates and High School Diplomas.....	120	
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Degrees Granted .....	119	
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## Fellowships and Scholarships

University authorities, firmly believing in the wisdom of trying to stimulate advanced study and independent research in various lines of thought, have again provided for a few fellowships and scholarships for the next year:

one industrial fellowship in the School of Mines yields \$400, each of three general fellowships \$300, and each of three general scholarships \$150. The awards were made in April and are as follows:

Mary E. Fowler, Fellow in History

Carl A. Hiassen, Scholar in Law

Mildred M. Ihrig, Fellow in Economics

McDonald W. Scott, Industrial Fellow in the School of Mines.

A. Clara Tussing, Fellow in English

In addition to these, working on the home grounds, two other appointments were made—to the newly created interchange fellowship with the University of Buenos Aires (See the *Quarterly Journal*, April, 1921, p. 268). To these interesting and highly responsible posts Mr. Alfred T. Torrison (B. A., U. N. D., 1917), and Mr. George A. Crain (B. A., U. N. D., 1921), were appointed. Mr. Torrison and Mr. Crain are expected to begin their work at the University of Buenos Aires in February, 1922, the beginning of the year at that institution. The Buenos Aires representatives are expected here at the beginning of our next year, in September, 1921.

### **Phi Beta Kappa**

In accordance with our custom since 1914 when a local chapter of the national honorary literary society Phi Beta Kappa was established at the University, approximately one-sixth of the graduating class was thus selected for distinction. Eighteen new names were added to the local chapter and as many ambitious young men and women were given the highly-prized privilege of wearing the "Key" and of thus identifying themselves with the "intellectual aristocracy" of the country. But the "Key", while it may be a social passport of some value, will not be found able to unlock the doors to success in the various professions and activities of life. Let us hope that it will not be so regarded and thus become a handicap instead of a stimulus. The list of new members follows:

Louise A. Bennett

Sophus Bolme

Louise O. Canham

Olive A. Dahl

Mary W. Fowler

Gail M. Gaulke

Cushman D. Haagensen

Dorothy W. Healy

Stella M. Hinz

Mildred M. Ihrig

Wesley R. Johnson

Ralph V. Landis

Geraldine McNicol

Raymond L. McLees

Anne M. Mitchell

Clarence E. Robbins

Marjorie Shank

Owen D. Zellner



**Manitoba Exchange  
Lectureship**

The exchange lectureship with the University of Manitoba, by means of which, each year, one or two men from each institution is invited to visit the other institution for a period of two or three days and speak on topics of interest, has now been in operation just a decade, being inaugurated in the autumn of 1911. During that time the University of North Dakota has been privileged to become acquainted with and to hear some fifteen of the strongest men from our neighbor at the North. We have found them gentlemen, scholars, and teachers of rare excellence, and we prize the acquaintance. About the same number of North Dakota's men have had the rare pleasure of a visit to the University of Manitoba and of becoming acquainted with an even larger number of their people. Each has returned enthusiastic over his visit and singing the praise of his host. Each visitor has found an atmosphere somewhat different from that of his home institution and thus has come into first hand contact with other customs and other traditions. This they have prized and have shared at home, and thus all have felt broadened by the exchange. The two institutions have a decidedly fraternal feeling toward each other.

North Dakota's guest from Manitoba this year was Dr. E. M. Burwash of the Department of Geology. He visited us in April, speaking on Wednesday afternoon, the 13th, informally, in a well illustrated lecture on "Geology of the Canadian Rockies". The next morning at our regular Convocation exercises he spoke again, this time on "Canada and the Empire". Both lectures were well attended. The Quarterly Journal is pleased to announce that the Convocation address will be found in the October issue of this publication.

North Dakota's representative at Manitoba was Dr. E. T. Towne, head of its Department of Economics and Political Science. His visit was made about the middle of March. He, too, gave two addresses, one before the University as a whole, at their Convocation, speaking on "The Old versus the New Economics" and the other at a more informal gathering on "The Teaching of Social Science a Necessity in a Democracy."

**The Pilgrim  
Pageant**

Twice before this year the University of North Dakota has attained distinction in the production of a pageant. "The Pageant of the Northwest" in 1914 and "Shakespeare the Playmaker" on the occasion of the Shakespearean

tercentenary in 1916 were productions of note and attracted much attention outside of our own University circles. It was no mean undertaking to bring out another pageant on the theme of another tercentenary, that of the landing of the Pilgrims at Plymouth. Much less time was spent in preparation, but similar methods of composing the book of the pageant were adopted. Effort was concentrated and most satisfactory results achieved.

"The Faith of our Fathers", as the pageant of this year was entitled, consisted of three episodes: The first, "England", depicted the difficulties encountered by the Brownists in their endeavor to worship God according to the dictates of conscience; the second episode, "Holland", outlined the homelessness of the exiles in the Netherlands and their fears for the preservation of their faith and English traditions; the third episode, "America", represented the trials of the first hard winter and later the formation of the governmental institutions which have meant so much to the life of this country. It would be invidious to make distinctions between the many characters who played important roles in the pageant or between the different phases of the presentation. All characters did well and contributed their expected parts in making the pageant a great success; and all phases of the pageant were well thought thru and well executed so that everything moved in delightful harmony, and the whole presented a very satisfying unity. However, one exception might well be made in favor of the dances. Rarely does interpretative dancing make a better demonstration than in the "Interlude" of the Winds and Waves between parts I and II, or in Episode I of the third part of the pageant where Famine, Disease, and Death, together with Winter, the North Wind, and Frost chill the hearts of the brave Pilgrims. These dances were especially well executed and became very impressive.

This, as former pageants, was under the general management of the University's dramatic organization, the Dakota Playmakers, of which Professor Franz Rickaby is Director, tho the organization was generously assisted by many others both in and out of the University. The pageant was given in the University's widely-known and justly celebrated Bankside Theater, was given on two successive nights before very large and appreciative gatherings, and is generally regarded as measuring up well with the difficult standards set in former years. June 10-11, 1921, will hold a well-earned place in the dramatic history of the institution.

## ATHLETICS

**Football** The football season of 1920 was in many respects the most satisfactory of several years. The University had a well-balanced schedule and a fairly well-balanced team. The backfield was particularly strong and fast; the line men usually showed up well, but at critical times manifested a weakness not noticeable in the backfield. In all, eight games were played, four of which were won, three lost, and one, with the University of South Dakota, resulted in a tie—7 to 7. But the games won were with the institutions that have come to be regarded as the University's natural football rivals—the North Dakota Aggies, Fargo College, South Dakota State College, and Hamline University, while the games lost were with institutions from which the University of North Dakota should not be expected to win—the University of Minnesota, Marquette University, and Valparaiso University. But with two of these—the latter two—the scores were encouragingly close. So that the season as a whole is very satisfactory. The prospects for another winning team, for the 1921 season, are particularly good since only two men were lost by graduation and, to offset these, promising material is expected from the incoming classes.

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**Basketball** The basketball season was even more satisfactory than that of football. It came within one of equaling the phenomenal record of 1920 when every game, sixteen in all, was won and with a total score record of 736 points as against 251 for the opponents. And the game lost was with the University of Minnesota, and that by a single point, the score standing 18 to 19. The work of the season gives the University of North Dakota the undisputed championship of its natural territory—the two Dakotas and Minnesota, since the team won over South Dakota State College, the champions of that state, and over Carleton College, holding the same position in Minnesota, as well as over all opponents in its home state. But prospects for 1922 are not overly good for a repetition of such work owing to very serious losses thru graduation.

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**Track** The track work has been equally good. Three dual meets were planned—with Macalester College, St. Thomas College, and North Dakota Agricultural College. The first



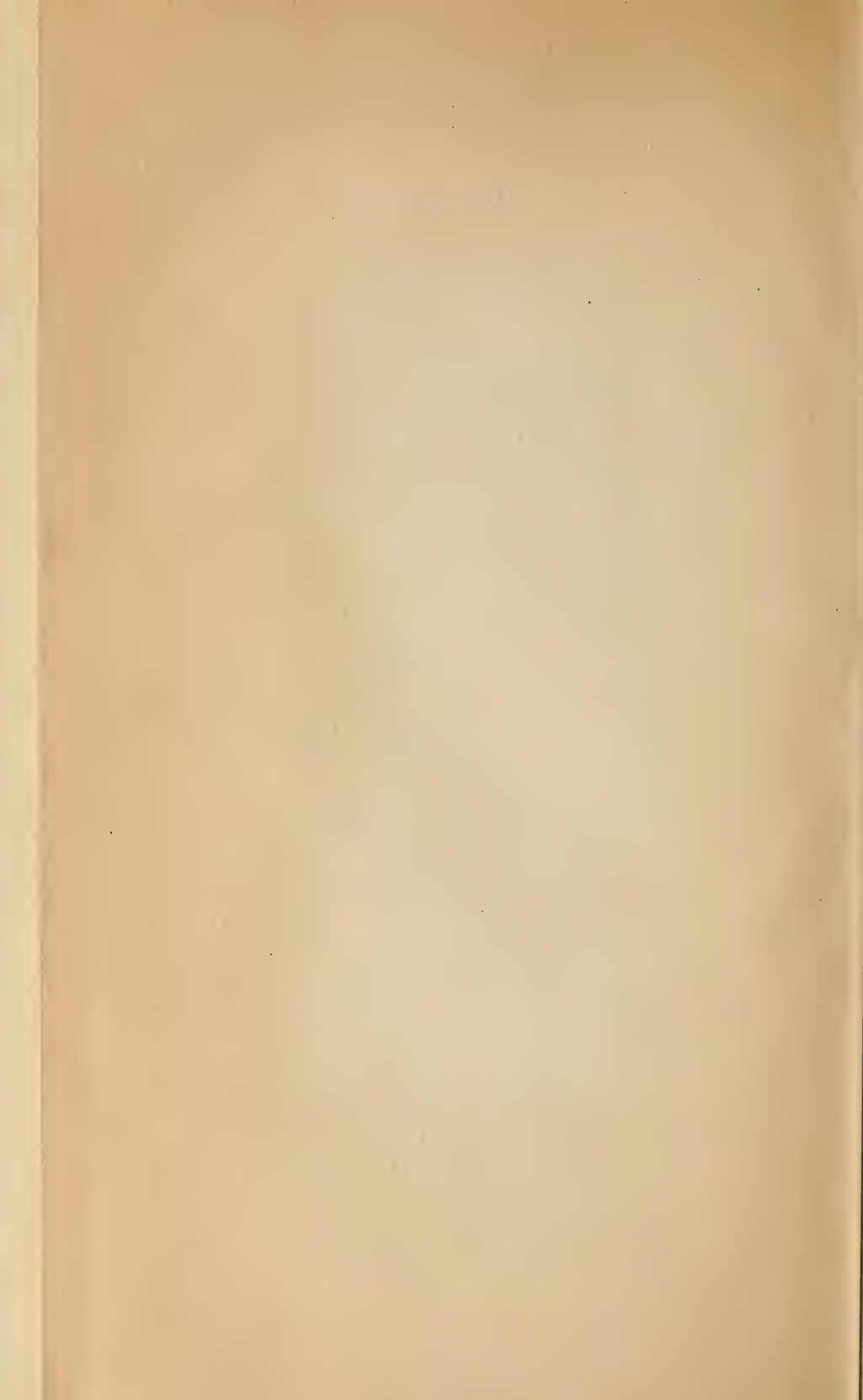
two were held as scheduled, with victories for North Dakota, in both cases with scores practically two to one. The meet with the local Aggies was not held and for obvious reasons—they canceled the date without explanation.

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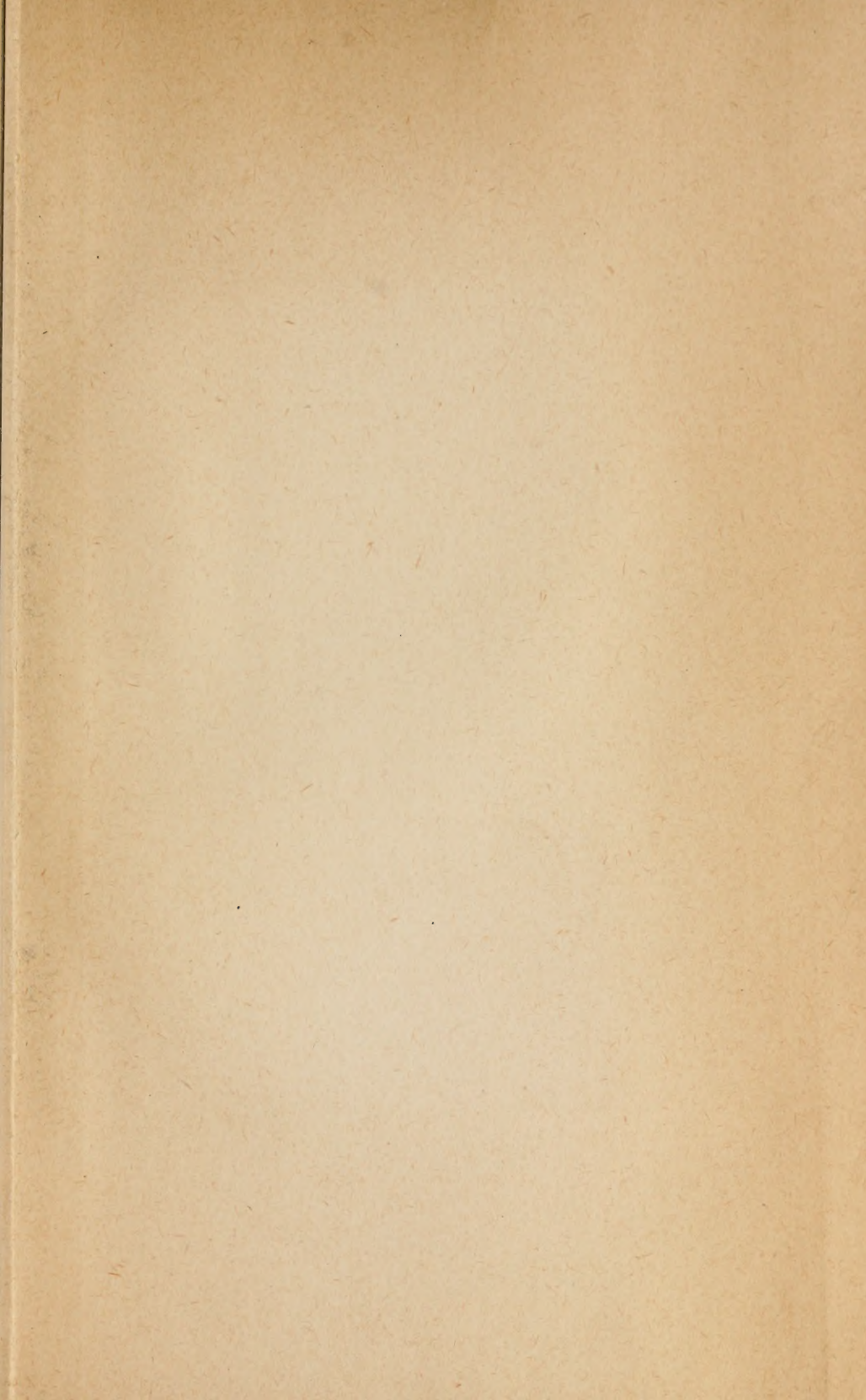
**Intramural Athletics** The University is taking a leading position in the Northwest in intramural athletics, the slogan being "Athletics for all students" as against strictly Varsity teams. The results thus far are very gratifying. Under the general direction of the Athletic Association a campus league basketball organization was effected with ten teams competing. The Association furnishes uniforms for all teams in their respective organization colors thus adding zest. This policy gave all men, even tho not capable of making the Varsity team, an interest in the game, a chance to get the needed exercise, and an opportunity to help win honors for their local organizations. It resulted in drawing more than one hundred men into regular basketball work. The competition was keen, finally resulting in a campus victory for Alpha Kappa Zeta. A similar organization was effected among the groups interested in baseball with an equal number of teams competing and with a correspondingly larger number of men participating. These two leagues have been much more successful in arousing campus interest and in securing general participation in wholesome athletics than the old program. And it doesn't even need the stimulus of a Varsity team to make it effective as evidenced by the fact that the University had no Varsity baseball team this spring. It may not have for some years to come, at least not till the present high cost of travel has been considerably reduced.

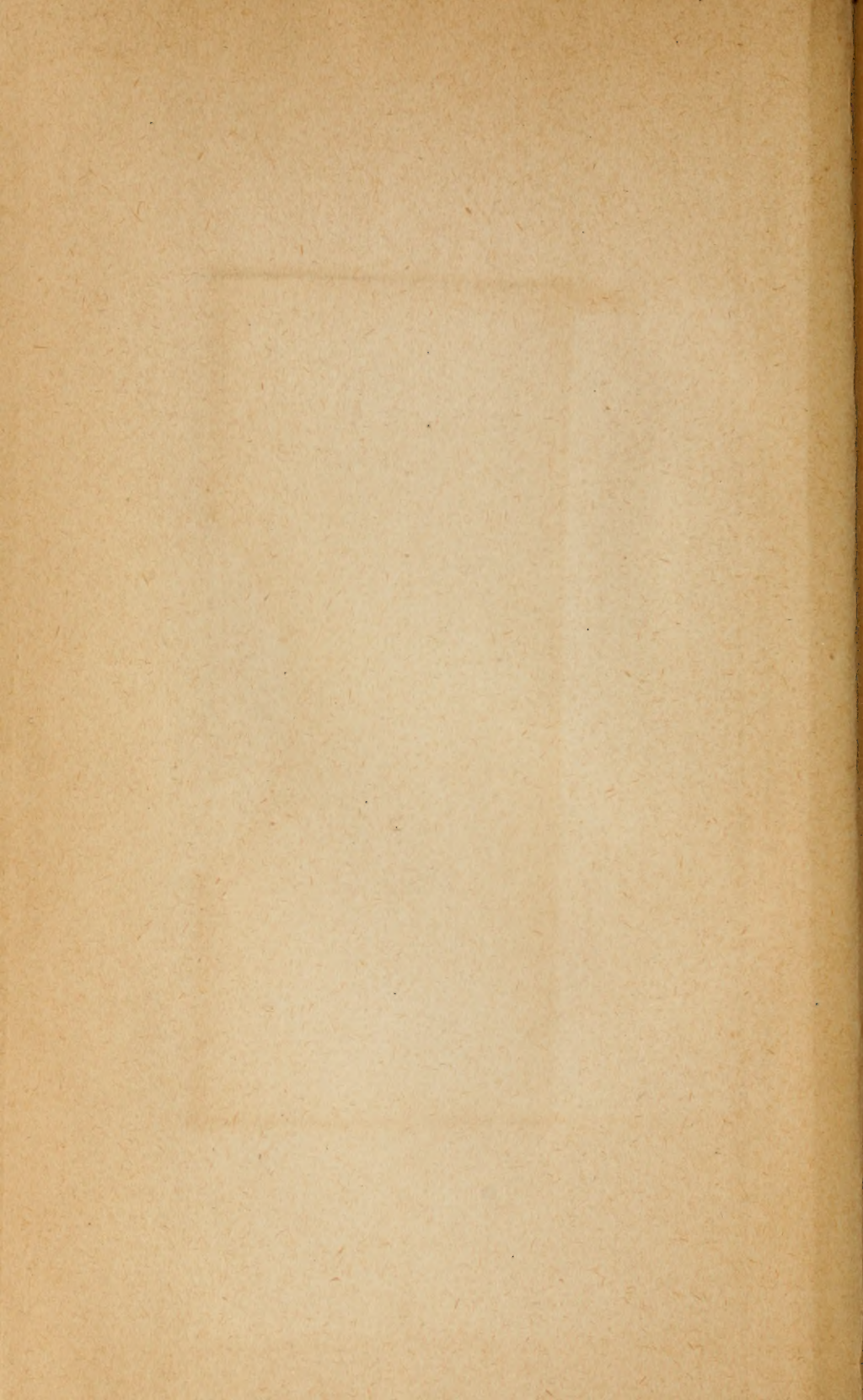
As a whole, the athletic year has been very successful, both in the work of the Varsity teams and in the larger, more valuable, tho less spectacular, work wholly confined to the campus. In both ways the future looks inviting tho no one is optimistic enough to expect an uninterrupted series of victories.













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